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ABSTRACT

The "Plain Talk about K.I.D.S. (Kids Inclined toward Difficulty in School)" summit is a biennial conference that addresses the challenges of educational change from several strategic directions at once, combining theory and research with concrete strategies and solutions from the educational, medical, judicial, business, and parental professions. The 15 papers presented in this proceedings are followed by 10 chapters, each containing a report of a panel discussion. These discussions considered teaching methods, home and school relationships, assessment, justice, teacher education, and other aspects of educational change. The delivered papers are: (1) "Paying Attention to Attention and Anxiety" (Edward M. Hallowell); (2) "What Technology Holds for the Future: Mrs. Eldridge's Arm" (John Gage); (3) "Cohesion's Lessons: When the Learning Process Fails To Connect" (Melvin D. Levine); (4) "Self-Worth, Resilience, and Hope: The Search for Islands of Competence" (Robert B. Brooks); (5) "What Does It Take To Learn? The Effects of Class Size on Learning" (Charles M. Achilles); (6) "A Teaching and Learning Quilt" (Priscilla L. Vail); (7) "Rights vs. Reality: Knowing the Child Is More Important than Knowing the Law" (G. Emerson Dickman, III); (8) "Writing-itis: A Common but Often Overlooked Problem Experienced by School Children" (Glenda C. Thorne); (9) "To Medicate or Not To Medicate" (Gerard A. Ballanco); (10) "Plain Talk from a Parent's Point of View" (Ruby Bridges Hall); (11) "Life Skills for the Juvenile Offender: A New Approach for the Criminal Justice System" (David Admire); (12) "Improving Teacher Education in Collaboration with Schools" (Jeffrey Gorrell and Robert K. Wimpelberg); (13) "The Indispensable Role of Informed Parents" (Anne Ford); (14) "Children with Vulnerabilities: When Will We Turn on the Lights?" (Allan Berman); and (15) "All I Have Learned about Learning" (Bernice McCarthy). Each chapter contains references. (Contains 1 figure and 10 tables.) (SLD)

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Transforming
Crisis
Into
Success

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*Plain Talk About K.I.D.S.**

**Kids Inclined toward Difficulty in School*

* * *

A Summit on Educational Change:

Transforming Crisis into Success

ALICE P. THOMAS, M.ED.

EDITOR

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To my husband David,
and my children, Russell and Amanda,
for their love, lessons, faith,
wisdom, and hope.

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Preface

* * *

Time, tradition, and society present a woeful foe,
but there are dreams that even the sharpest sword cannot pierce,
dreams that are not of the dreamer but of themselves.
It is these dreams that create their creators,
those untarnished by fear or doubt,
that ultimately become the truth.

—Russell Thomas, age sixteen, on ending discrimination

PLAIN TALK ABOUT K.I.D.S.*, a biennial summit, addresses the challenges of educational change from several strategic directions simultaneously. It combines cutting-edge theory and research with concrete strategies and solutions from the educational, medical, judicial, business, and parental (yes, parenting is considered an "equal" here) professions.

The PLAIN TALK 1997 summit was attended by 579 participants from sixteen states. And why were they here?

Current educational systems and schools are failing to address the learning needs of far too many of our children. PLAIN TALK offers an opportunity to have the dynamics of the learning process demystified and to build a network of professions and professionals committed to impacting change. And in 1997, that it did.

We live in exciting times for education. As our nation moves toward the new century, many new challenges and opportunities face us. We have a duty to act responsibly as concerned citizens who want to influence the new shape and scope of education available to all of our children. This is a mandate that deserves our undivided attention and investment, for a vibrant educational system is the cornerstone of our communities and our society. Those who attended PLAIN TALK 1997 gave unified focus to how they might become a part of the solution.

PLAIN TALK ABOUT K.I.D.S.* 1997 was an enormous success, not only because of all the knowledge and wisdom shared during those three days; it was, for most of us there, a spiritual binding of purpose and dedication. Those of us who were there left more enlightened, more positive, more committed, and more determined than when we came. The following pages of these proceedings are an attempt to renew the commitments made during those three days for those who attended, and to share these commitments with a broader community of interested parents and professionals.

The educational, medical, judicial, business, and parental professions are represented within the following chapters. Each has its unique contribution. Each recognizes an unavoidable responsibility to our children. By exchanging information and building on the expertise unique to each yet common to all, we can expect to influence a more effective and efficient educational evolution together.

Each chapter will give the knowledge, research, and viewpoint of its author, with subjects ranging from anxiety to technology and from roles of parents to life skills for juvenile offenders. Each may be read separately; but together they speak strongly about what we can do to improve our educational systems and schools—public, parochial, and private—for all children, and especially for those who are at risk.

We know this:

- All children can learn, all children want to learn, and all children deserve to learn by being taught in ways that increase their opportunities for success.
- All across America, children are failing, and schools are failing to respond.
- Educated children are more likely to grow up to be responsible, productive community members.
- Schools do not exist in a vacuum. They are interconnected with and dependent upon all of us—our communities, our organizations, and our institutions.
- It is not enough to talk about school reform. Our entire society must buy into educational change for it to be effective.
- We must give front focus to the children who are poorly understood and poorly taught, those children who could learn if we would learn how to teach them better.

As a teacher, I urge my profession to demand both broader and deeper preservice and inservice. It is very frustrating to know that you need to know more and yet not have access to more: more knowledge about learning, more information uncovered by solid research, more varied techniques and strategies for teaching, more collaboration and communication with fellow educators, more policing of our own profession, more public demand for excellence in teacher training. As a parent, I urge that we empower ourselves to support sweeping reform in teacher preparation. As a citizen, I challenge us all to realize that better education is everybody's business. We cannot afford to lose one more child to our own ignorance.

It is a pleasure and a privilege to invite you to embark on an ambitious and joyous journey with us—a journey whose mission is to give all students better opportunities for school and lifetime success. It is ambitious because the task that lies before us is enormous and uncompromising; joyous because it will surely bind us together as we travel to higher levels of sharing, thinking, and feeling.

While our task is challenging, with commitment and tenacity the goal is attainable. With a professional and personal urgency and a passion to make a difference, we will be successful. Enlightened minds work uncommon magic.

The time is now and the responsibility is ours. Together, we can revolutionize our schools, end the ignorance of discrimination, and ensure a solid education for all children.

> *Never be afraid to raise your voice for honesty and truth*
> *and compassion against injustice and lying and greed.*
> *If people all over the world, in thousands of rooms like this*
> *one, would do this, it would change the earth.*
>
> —William Faulkner

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The PLAIN TALK ABOUT K.I.D.S.* 1997 summit was a true collaboration. I would like to acknowledge a group of individuals for their guidance, assistance, and support. Many thanks to Margie Villere, for determination and leadership in gathering financial support for the summit so that its message might be heard; to Francoise Richardson, for her unfaltering generosity that allows the Center for Development and Learning (CDL) and its projects to continue; to my co-chair Marian Arrowsmith, for her countless contributions, especially to the teacher award program; to Dr. Jerry Ballanco and the Honorable John W. "Jack" Greene, for their steadfast support of the summit and CDL; to the "Plain Talk and All That Jazz" Committee—Margie Villere, Cathy Favret, Cheryl Lilly, Judy Greene, and Nancy Baldwin—for an unforgettable evening at Antoine's; and to the CDL Board of Directors, the corps of volunteers, the CDL consultants, and the CDL staff, whose teamwork helped make the magic happen for three days.

On behalf of the staff and board of directors of CDL, I express gratitude to the following funding sources: Area Health Education Center, Dr. Gerard A. Ballanco, Baptist Community Ministries, Booth Bricker Foundation, Catherine Favret, Anne Ford, Franklin Electronic Publishing, Freeport-McDermott Golf Classic, Mr. Stephen Goldring, Goldring Family Foundation, John Gage, German Protestant Orphan Asylum Foundation, Greater New Orleans Foundation, Leslie Jacobs, Mr. and Mrs. Richard B. Kaufmann, Keller Family Foundation, LaSalle University, Cheryl and George Lilly, Louisiana Alliance for School Reform, LSU School of Medicine, New Orleans, Neill Corporation; Novartis Pharmaceuticals, Richards Family Foundation, Reily Foundation, Francoise B. Richardson, Ross Laboratories, Shell Offshore, Mr. and Mrs. Frank Simoncioni, Mr. and Mrs. St. Denis Villere, Wilson Language Training, Woldenberg Foundation, Tommy Wulff, and the Zemurray Foundation. The combined support received from these individuals, foundations, and corporations has made PLAIN TALK ABOUT K.I.D.S.* and other CDL projects possible.

We thank you for your confidence in our work.

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CHAPTER 1

Paying Attention to Attention and Anxiety

* * *

Edward M. Hallowell, M.D.

> *One looks back with appreciation to the brilliant teachers, but with gratitude to those who touched our human feelings. The curriculum is so much necessary new material, but the warmth is the vital element for the growing plant and for the soul of the child.*
>
> —Carl Jung

It's wonderful to be back in New Orleans. I always love coming back here. I graduated from Tulane Medical School in 1978, and the four years I spent here in New Orleans were truly marvelous. Charity Hospital and Friday Night Knife and Gun Club. I have wonderful memories of all the evenings I spent learning how to do everything doctors are supposed to be able to do. It was a great, great city to be a medical student in, with its tremendous sense of life and vitality and charm. I must say, it's a good thing they didn't have casinos in town when I was in medical school. Casinos are sort of ADD heaven, and I don't know how much time I would have spent in lectures if casinos had been in New Orleans then.

I have both dyslexia and attention deficit disorder myself. I'm married to someone who has neither, although she's beginning to wonder if they're contagious. I have three kids — Lucy is seven, Jack is four, and Tucker is one. Jack, by the way, before I left on this trip, looked at me and said, "Daddy, why does anyone want to go listen to you talk?" I said, "Jack, please, don't tell anyone, you know, this is business." Lucy had some reading problems that her school took care of very nicely, probably her version of my dyslexia.

I use the phrase "so-called learning disabilities", and I mean that. I really don't think of these conditions as disabilities as opposed to the rest of the world having abilities. Learning is a challenge for everyone. There isn't some disabled population over there and the rest of us over here who can smugly say, "Well, I'm glad neither I nor my child is disabled like those other people." If you look at the population of people who have learning disabilities, so-called learning disabilities, they're extraordinarily productive, gifted people, so it really reduces to meaninglessness the term "disability." Much more accurate is that people learn differently.

We all would benefit from asking ourselves the question, "What kind of brain do I have?" I believe that in the coming decade, particularly with what we're learning in the neurosciences, that will be the question asked in school and in the workplace, instead of, "Am I smart? Am I stupid? What are my SAT scores?" The kinds of "what is my IQ" questions that have been asked for centuries will become a thing of the past. We're now going to start asking the much more neurologically sophisticated and accurate question, "What kind of brain do I have"? This sort of inventory of skills and vulnerabilities will start in first grade and continue right on. In fact, I can see it as being part of a neonatal assessment. Indeed, it is more of a neonatal assessment at this point than of children old enough to be in the school system.

Schools have been traditionally stuck in an old model of "smart" and "stupid" and grading children according to fairly narrow kinds of abilities. Right now, the worlds of biology and neuroscience are opening up the world of learning into its very complex dimensions. This is allowing all children and all parents to ask themselves this very wonderful question, "What kind of brain do I have?"

The corollary to that is, "How do I manage the brain that I've got?" What kind of brain do I have, or does my child have, and, given that, how do I manage it best? If you ask those two questions at the start of every school year, if you sit down with the teacher, with your child, with your students, and ask those two questions, you can guide an entire education, an entire lifetime so much more meaningfully than if you sit down and say, "What grades did you get last year? What's your IQ? What are your SAT scores?"

Asking "What kind of brain do I have?" and "What should I do to best manage the brain that I've got?" begins to get fear out of the room. A whole new process starts then, and it can happen in every school across the country today, if we work hard enough. All of this begins by setting the right emotional atmosphere; it does not begin with fancy tests and brain scans and all kinds of numbers and quantifiable data. It begins with the feeling state, and I love to tell the story of my first grade teacher to demonstrate this.

This was a woman who had no advanced training of any sort, other than many years of teaching first grade. Back in 1955 when "smart" and "stupid" were the available diagnoses, I showed up for first grade in Chatham, Massachusetts, in a little public school on Cape Cod. I couldn't read. All the other kids in the class were learning how to read; months went by, and I wasn't. I couldn't even sound out words; I couldn't look at a *b* and say "ba." I couldn't put together those little letters into sounds and into words. Meanwhile, I came from a family that loved language and so I was being read to all the time. I loved stories. I wanted to learn how to read. It wasn't that I was not motivated. My eyesight was okay, my hearing was okay, and I had the neurological tools in terms of peripheral sensory ability. But I was stupid, to use the words of the day. I couldn't get it; I couldn't read.

What was my treatment? Well, my treatment was my teacher, a woman named Mrs. Eldridge. She probably was around five feet tall and about that wide, too, and she had grey, curly hair. I remember her round glasses, and she wore dresses, I remember, that had apples on them. I can still see those apples, all this roundness. We had reading tables where a bunch of us would sit in circles and read books about Spot, Jane, and Dick, and what not. Mrs. Eldridge would sit down next to me, and when it would be my turn to read, she'd put her arm around me. She'd pull me in next to her and I would try to get the words out, but I would stammer and stutter. But none of the other kids would laugh, because it was like I had the Mafia sitting next to me. That was my whole treatment plan; that was all she did. But that was all she needed to do. You see, she got fear out of the room. She made it safe for me to fail. She made it safe for me to use the brain I had. Call it stupid, call it disabled, call it dyslexic—it was my brain; the brain I was going to be stuck with for the rest of my

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life. Mrs. Eldridge gave me the great gift of starting me off in this adventure called learning with a positive feeling, a positive attitude, with a hug, a literal hug—as I was doing the thing that I did worst, namely, trying to read. She couldn't cure that; that was not in her bag of tricks. But, what she could do, what every parent and teacher can try to do, is make the place where you learn safe—to fail.

Learning is much more about failure than it is about success. The reason that grownups stop learning is because they don't want to fail anymore. They don't want to publicly embarrass themselves anymore. Why do so many people in my generation not get computer literate? Not because they can't, but because they're afraid. They don't want to look stupid; they don't want to experience humiliation. Too often, they were inoculated against that in school. Too often, in the history of education, the chief pedagogical tools were instruments of shame, pain, and humiliation. Too often we have taught children that learning is a very scary, very unpleasant undertaking, and something you really want to get away from as fast as you can—which many children do, the minute they leave school. If we look at the history of education, we read through a very gruesome tale. It was education geared only toward the very most adept, the very quickest learners, particularly in Gardner's linguistic and logical mathematical categories. Those were the select few to whom education was geared. All the rest were treated like garbage; they were treated like idiots, and they were shamed and ridiculed and humiliated. The failure to learn was considered to be a disease of the will. You weren't trying hard enough, and so you needed to be motivated, and shame, pain and humiliation were the standard motivators.

These have been standbys that good teachers have used, good teachers who thought they were doing the right thing. One of my great heroes, Samuel Johnson, talked about his education. He looked back fondly on his old teacher who he said whipped him well. That was the idea; that was what good teachers did.

Well, all that is starting to change, thank goodness. We are learning that brains are different. We are learning that people acquire knowledge at different rates, at different times, in different ways. We're learning that learning happens best in an atmosphere lubricated with reassurance, where fear is not the governing motivational force, but rather where an attitude of positivity, of can-do, want-to-do, fills the room. That is not to say that learning is easy. Learning will never be easy. Learning is hard; learning does involve stretching the mind. It does involve opening yourself up. We're never more vulnerable than when we're in a learning state because we're saying "I don't know what's happening, I'm out of control, I might screw up, I might slip up, I might make a 'fool' of myself." We make ourselves very vulnerable when we open ourselves to learning because we are going into a domain that we don't know how to do. Whether it's dancing a new dance or fielding a ground ball or trying to learn how to speak French, we're going into a domain that's unfamiliar. So, it's going to be hard. If we want people to keep at it, and, boy, we surely do want people to keep at it, we want them somehow to associate with the process, positive feelings: the possibility of mastery, the possibility of success; that hug. Mrs. Eldridge's arm has stayed around my little head ever since first grade; I can feel it there right now. It's an arm of reassurance; it's an arm that says, "It's okay, you'll get there, you'll get there someday." I didn't learn how to read at grade level until well, third, fourth grade; I'm still a very slow reader. It takes me forever to get through a book. But I ended up being an English major at Harvard. I had to read some books, and I had to get it straight, and answer questions on the books, and get the right answers to the questions. And I graduated with high honors, and now I make my living with words.

So, for all this disabled, dyslexic, stupid brain, it was trainable and it is still very actively engaged in learning. I love learning, so it means I make mistakes all the time. But, it's that arm around me, Mrs. Eldridge's arm around me, that has made all the difference.

If we create that positivity, particularly in the early grades, we give children a gift that cannot be taken away. When we get fear out of our systems, the reward is knowledge. And knowledge is power. And the worst learning disability is not ADD, or dyslexia, or any of the other "D"'s—it's fear. Teachers, parents: create an atmosphere of can-do, and want-to-do naturally follows suit.

I think it's just wonderful what the CDL has put together these few days, the range of speakers that you have here; I've never seen it brought together in one place like this. You in New Orleans are really leading the way with conferences like this one. It's a remarkable event. If you want to support a cause that is worthy of supporting, I can't think of anything better than the cause of helping children learn how to learn, helping children how to acquire this tremendous thing called knowledge and mastery. The CDL is working on that, so I hope you'll feel inspired to give of your resources, whether it's money or time or both, and to tell your friends that you have in this city a true, cutting-edge institution, that has national and international arms and implications. I hope you'll get as excited about it as I am. I hope you'll feel that this is something you really want to get behind. The little kids who are out there who are struggling don't need to, and, with your help, lives can turn around.

Let me just give you a quick example of such a person. This fellow went to the same high school I attended. I went to Phillips Exeter Academy. Exeter is a very rigorous, old-fashioned prep school, extremely intellectually demanding, very much in the old European mold of smart and stupid and cut-throat competition and survival of the fittest and so on and so forth. I went to Exeter, and so did this guy. Exeter was hard on kids who didn't learn quickly, and this fellow was such an example. Here he is looking back at his years there (he graduated in 1965), and he writes the following words:

> I simply accepted the conventional wisdom of the day—I was a struggling student; therefore, I was stupid.
>
> I was such a poor student, I needed five years to pass the three-year foreign language requirement; and in my fifth year at Exeter—in my second "senior" year—I was taking Math III for the second time. (I had already taken Math II twice.) I was such a weak student, I passed Latin I with a "D-" and flunked Latin II; then I switched to Spanish, which I barely survived.
>
> I wasn't diagnosed as learning-disabled, or dyslexic at Exeter; I was just plain stupid. I failed a spelling test and was put into remedial spelling class; because I couldn't learn how to spell—I still can't spell—I was advised to see the school psychiatrist! This advice made no sense to me then; it makes no sense to me now. But if you were a poor student at Exeter, you would develop such a lasting sense of inferiority, that you'd probably be in need of a psychiatrist one day.
>
> I wish I'd known, when I was a student at Exeter, that there was word for what made being a student so hard for me; I wish that I could have said to my friends that I was dyslexic, or learning-disabled. Instead, I kept quiet, or—to my closest friends—I made bad jokes about how stupid I was.

He's not looking for an excuse. He says, "I wish I could have known when I was a student at Exeter, that there was a word for what made being a student so hard for me." A word, a diagnosis, that's what he was looking for, that's what he needed and wanted. But, in the absence of a diagnosis, the word he took on was "stupid," as children tend to do; as they have tended to do for thousands of years.

Well, it turns out that the man who wrote those words is John Irving. He wrote *The World According to Garp*, *Hotel New Hampshire*—numerous best-selling novels. He's a regular contributing critic for the *New York Times Review of Books*. He's one of our foremost novelists, critics, essayists, men of letters; an internationally famous novelist. But when he graduated from high school, not only did he not think he was on his way to a career as a superstar novelist, he thought he was stupid, defective, particularly in the domain of words, the very field where he achieved greatness.

That story rings out to me. How many children right now, around this country, around the world, are sitting in classrooms, staring at blackboards, thinking, "I'm stupid. This sucks. I can't get it. I'm a loser." And how many of them are potential John Irvings? Lots, but John Irving was lucky and blessed; he made it out of that mind set. Most people don't. What gets laid down in high school can stay with you an awfully long time, particularly a self-assessment of the brain. What kind of brain do I have? How do I manage it best? A lot of people coming out of high school think, "What kind of brain do I have? A bad brain. How do I manage it best? Get by, go for as much pleasure as you can, because it's not going to work out for you anyway." That's preventable.

Think of those words of John Irving's when someone says to you, "Oh, this is just a lot of gobbledy-gook; let's bring back the good old days of smart and stupid." Think of John Irving and multiply it times millions. One of my former patients is the captain of the Boston Celtics, Rick Fox. Granted, the Celtics aren't one of the best teams around, but to be captain of a professional basketball team is not bad. And as he learned about ADD, tears came to his eyes. He said, "My God, that explains so much, that explains so much." And he felt so strongly about it that he allowed himself to be interviewed in *Sports Illustrated*, and has allowed himself to be talked about as having ADD even though some people will take pot shots at him for that.

Many of my patients in the Boston area are high-achieving individuals, and they can tell stories similar to John Irving's of their brain being misunderstood. Recently, I had a student who was languishing at a private school, not fitting in, being made fun of, getting bad grades. Lo and behold he suddenly qualified as a finalist in the Westinghouse science competition. Suddenly the school said, "How did this happen, where did you come from?" Suddenly he's a VIP, the school newspaper wants to interview him, the headmaster has him in to talk to him. He says to me, cynically, "All of a sudden, they like me." You know, he had one of these brains that learns differently, that nobody had known had talents.

There's gold in these brains if we can go get it. Instead of waiting for the achievement to somehow validate the child, why don't we start by validating the child? That way we'll get a lot more achievement out of everybody. It begins with the emotional stance we take.

Now, I'm going to talk about some specific brains. Most of the information I'm going to talk to you about is in *When You Worry About the Child You Love*. It gets into territories other than just attentional problems but I'm going to talk about some attentional problems as well.

Also, I want to plug something that I have just become involved in. I've gone on the Web, the Internet. There's a company called Mediconsult.com that runs virtual medical clinics on subjects such as prostate cancer and cardiology. They are now going to have one on learning problems and ADD, and I'm going to be their virtual expert. For no charge, people can log on, get to that Web page, download information, as well as ask me questions to which I will respond. A terrific service. If any of you are interested, the address is Mediconsult.com. I think, by the way, this is very much the wave of the future, this worldwide sharing, so that information can become available to everyone, at no charge or very little charge.

Let me talk about some different brains that you all see every day. Bear in mind there's not a good brain and a bad brain; bear in mind there's no such thing, in my opinion, as a normal brain. I don't know what standard we would create. Now would I want to have a normal brain? I'm very glad that I have attention deficit disorder; I think people who don't have it have attention surplus disorder. In Massachusetts, most of them work at the Registry of Motor Vehicles, these dense bureaucrats.

Well, let's look at attention as a starting point. This thing called attention, this energy beam called attention, has been taken for granted for centuries. The assumption has been, you wake up the morning, a light bulb goes off, your attention comes on, then you go to sleep and your attention goes off. And that the only regulator was willpower. If your attention disappeared, you should be slapped upside the head to "pay attention." That was the basic field, that was the basic paradigm, in school, in the workplace, at home.

Well, along comes neuroscience in this century, and we begin to examine this phenomenon of attention. We discovered that it varies tremendously from person to person on a genetic-biological basis. People pay attention differently, and the implications of this are profound when it comes to how you learn. Some of you right now are not here. Your mind has gone elsewhere; you came here intending to be here; it wasn't a matter of willpower. You intended to listen to me but something else caught your mind, something else literally caught your attention, and off it went. It's one of the great things about mental life, you know. Our minds do not have to be where our bodies are. It's the secret of some people's sex lives, you know. It is a wonderful thing that we can figuratively leave the room. And for those of you that have, it's okay because I am not going to call on you. But when that happens in the classroom or in a work environment, or in the middle of a conversation, the consequences can be severe, and it's not because your mind left on purpose. This is what teachers and parents really need to understand. It's not that you said to yourself, "Well, today I really want to screw up in math class so I'm going to daydream." You don't go in intending, "And I can't wait for Mrs. Jones to call on me and tell me I'm a jerk for not paying attention." That happens, but it doesn't happen intentionally and that's the key point; that this is not intentional behavior. The mind has a mind of it's own, and some of the best minds tend to wander. They disappear.

One of my favorite stories about this was one of my adult patients with attention deficit disorder. We used to think, you know, that ADD only occurred in children, and we now know that it persists into adulthood in many, if not most cases. This man who came to see me was a poet, but he had to earn a living. He earned a living driving a school bus. He came in and he said, "I'm afraid I'm going to lose my job driving the bus." And I said, "Oh, really, why is that?" He said, "Well, the other day, I was driving my bus and I drove into the school yard, picked up all the kids, kids piled on the bus, I drove my route just like I do everyday. Drove the bus back into the bus yard just like I do every day, turned off the ignition, looked around, and the bus was still full of children. Hadn't made one stop. None of the kids had said anything—they thought they were on some weird kind of a field trip." Now, what had happened was he had started writing a poem in his mind, and he had hyperfocused on the poem. He could drive the route on automatic pilot, but the act of making the stops required attention in the present and that was long gone.

This is what happens in ADD. It is not that the attention goes blank; it's not a deficit. The term *deficit* is a terrible term. What it is is attention wandering. It's that the attention has a mind of its own. The attention goes, and when it goes it's very present, it's not in a deficit state. If anything, it's in a turbo-charged state. It's very focused; it's just not focused on the place it's supposed to be focused on. That's what happens. It's not a deficit; it's a wandering. The fact of the matter is that many, if not most, of the greatest discoveries in the world are made during these wanderings of the mind. You don't sit down and say, "Well, it's 11:00 A.M., time for me to think of a Nobel Prize–winning idea." You know, it doesn't happen like that. You don't plan it; it's not volitional. It happens spontaneously, impulsively, during a blip of the mind, during a wandering of the mind, while you're driving along in the middle of the night. Read about these discoveries, read about scientists and philosophers talking about their great moments of inspiration and discovery: they happen willy-nilly anywhere, anytime. They don't happen on demand, on plan, on schedule. That kind of thinking is totally different. The problem is it's that kind of thinking that schools require so much of the time, on-demand, in a certain place, at a certain time. Some people's minds are simply not geared for that, and particularly the ADD mind that is bopping around all over the place. It's not that it's bad, it's just that you put it into the context of school and it's often not meeting expectations, not doing what it's supposed to do. The dutiful attention-surplus kid, in the meantime, is sitting there spewing out everything he's supposed to spew out. One gets rewarded, the other gets punished. In my opinion, it shouldn't be that way. Again, it should be "What kind of brain do I have?"

School needs additional structure. It does not need punishment and it does not need ridicule. People often ask me where ADD has been all this time, why all of sudden in the nineties has ADD burst on the scene. Is it the latest yuppie flu, is it the disease du jour? You get these skeptical people stroking their chins saying, you know, harumph, this is nonsense. And, you know, the fact of the matter is, these symptoms have been with us for as long as there have been children. There is nothing new about kids whose minds wander in the classroom. There is nothing new about children who cannot sit still, there is nothing new in adults, for that matter, about people who are particularly inconsistent, particularly erratic. That's not new. The only thing that is new is the lens through which these symptoms are viewed. For centuries they have been viewed through the lens of morality. Problems with attention, or variations with attention were viewed as moral failings. Moral failings. You were bad; you weren't trying hard enough. And what's happened lately, what is new, is wonderful good news, that the lens has a competitor now and that lens is medical science.

Let's look at attention through the lens of science, not through the lens of moral judgment. Let's look at this phenomenon of attention as a scientific neurologic event, not a good-bad effort-related moral problem. When you look at it through that lens, wow, it becomes a whole different ball game. You find that there is variation, that there are interventions, and that these people who you thought were seditious, no-goodniks, in fact, have all kinds of capabilities, all kinds of willingness to cooperate and participate and shine. It's just that they go about it in a very different way. Neither one is better or worse than the other. The attention-surplus people we really need. I'm in business now with one; thank God for him. I never started a clinic, although people told me I should, because I knew I couldn't run it. Well, I hooked up with this guy who is very attention surplus. He very rarely has a new idea, but if you give him a new idea, he takes it and really nurses it and prunes it and waters it and shines light on it. The two of us together make a very good partnership.

Sometimes people ask me what happens when two ADD people marry—well, it's very interesting; sometimes it's wonderful and other times, problems develop. ADD is a trait; I don't think it is a disorder. It is a genetically transmitted trait. As time goes by, we're going to subdivide it into other kinds of traits and we'll realize that there are a whole bunch of brain subtypes under this umbrella. Folks with ADD tend to be creative, they tend to have an impulsive sort of style. If you think of creativity and impulsivity, what is creativity but impulsivity gone right? If something comes to you impulsively and it's very useful, we say, "Oh, how creative." If it's not, then we say, "How obnoxious."

They also tend to have high energy, these kids and grownups. That is a two-edged sword; in certain situations, high energy is wonderful. For someone like me, at age 41, a lot of my colleagues are sort of burning out. I'm just ready to roll, you know, and so it's a great asset. In fifth grade it's not necessarily so; it can get in your way if you're bubbling over with energy all the time. You can be a distraction or a disruption. ADD folks tend to be very warm-hearted. You can't prove this in the scientific literature but it is overwhelmingly my experience. They can't remember a grudge long enough to hold one. Another quality is this strange sense of time. In ADD there are two times, there is now and there's not now. And that's why planning is so difficult. You say, well, you're having a test next Wednesday; oops, not now, and it just doesn't really register until it's now and then, oh, my God, a test? Why didn't you tell me? Sequential planning and sort of a sense of time—they don't have so much, and that's why they need structure and reminders, constant reminders. It's not insulting to remind these people—I love it when people remind me.

A tendency toward being very sensitive, often an intuitive style—these kids have a sparkle, an energy. If you can just capture that and deal with the downside, that's what treatment is all about. Treatment is to identify and promote what's positive in these children, not just to contain and redirect what's negative.

I love to tell a story about a little boy playing trains, because I think it captures this plus/minus aspect of ADD. A little boy who has ADD is playing trains and says "Choo, choo, choo train comes into the station, everyone who wants to get off, get the hell off the train. Everyone who wants to get on the train, get the hell on the train." And Mom comes in and says, "You can't talk like that. You can't use that kind of language. What do you think you're doing? Go up to your room and think about what you said." The little boy trudges up to his room, and sits down on his bed. Mom goes off about her business. Two hours later Mom says, "Oh, my gosh, I forgot all about him" (probably has ADD herself). She goes up to the bedroom and he's still sitting there. She says, "Are you sorry about what you said?" He says, "Yes." She says, "Well, are you ready to come downstairs and play appropriately now?" and he says, "Yes." She says, "All right, go back downstairs and play." The little boy goes off to play. Mom goes off to the kitchen. Little boy starts playing trains again. "Choo, choo, choo train comes into the station, everyone who wants to get on the train, please get on the train very nicely, everyone who wants to get off the train, please get off very nicely. And if you're wondering why the train is two hours late, ask the bitch in the kitchen." That's what gets these kids into trouble. As they have been reprimanded for using one bad word, they come back with another bad word. The great creative challenge is how to hold onto that spunk, that verve, and maybe help them learn better judgment. Help them learn other skills. Too often the treatment basically beats the good stuff out of the child as it's trying to remedy the bad stuff. It's not easy holding onto the good while you're trying to redirect the problematic. That's the art of teaching and parenting and marrying and working with this kind of person: trying to hold on to, develop, preserve and promote the good stuff but help him reconsider, retrain, learn how to manage the stuff that gets in his way. That is what it's all about, whether you're in first grade, or whether you're in the workplace, or whether you're at home—that's the constant effort for the individual and for the people. It's a trick of brain management, not moral development.

Other qualities you tend to see in grownups with ADD, particularly, are problems with disorganization. The favorite organizing tool in adult ADD is piles; everywhere you look, you find these piles. Piles will take over any horizontal surface. These piles can be malignant, they can metasticize, they walk down corridors, they walk stairs, attics, basements, tables . . . piles are like black holes. Once something goes into a pile, it never comes out again. That's why ADD people can't throw anything away. "Don't throw away that pile. Who knows what's in there?"

By the way, the best antidote to piles was taught me by one of my patients. Use the acronym "OHIO" - Only Handle It Once. You have a piece of paper. Either act on it, throw it away, or put it in a labeled file. That way you stand a chance of seeing it again.

Other qualities these folks tend to have is the tendency toward procrastination. Why? Because by putting something off until the last minute, a boring task becomes interesting. You fill it full of terror and fear. "If I don't fill this out in three seconds, I'm going to lose my job." Oh, so suddenly it's interesting. Suddenly it matters, suddenly it grabs your attention. There is a tendency toward a search for high stimulation. These kids are always looking for something stimulating. Stimulation focuses the mind. This is one reason they love to argue. Don't get into arguments with ADD kids; they love to argue. It's more stimulating to argue with your teacher or your mother than to go do your homework. Fights, instigating fights—fights are stimulating. And then in older people, dangerous activities, driving fast. A lot of adults with ADD like to drive 100 miles an hour—they say that's the time their mind is best focused because danger focuses them. Danger is focusing. Risk-taking behavior. You find ADD people in high-stim jobs, emergency room physicians, commodities exchange traders, race car drivers—anything that's high-stim, has a danger factor, attracts the ADD person because danger is focusing. Think about it, it's self-medication. You're getting yourself to pump out nature's own Ritalin, which is adrenalin. In dangerous situations, adrenalin focuses the mind. These folks are self-medicating without knowing it. There is a tendency toward substance abuse in the ADD population. Again, they want to self-medicate. Cocaine is a stimulant. People with ADD, when they take cocaine they don't get high, they get focused. In fact, Ritalin has been used to treat cocaine addicts to help them get off cocaine.

By the way, while we're on that, let me just mention a word about Ritalin. The exaggerations and distortions in the press about this medication are positively shameful. The fact is (and I don't take medication myself; it doesn't help me), it could help about 80 percent of children and adults who have attention deficit disorder. The fact that it is so represented as a dangerous drug is a terrible thing. It's really misinformation. A lot of parents are scared away from this medication because they are presented such a distorted view in the press. I believe very strongly in the non-medication approaches to treatment, but when medicine can help, it's a Godsend, and to deprive these kids of it is a real shame. When it works, it focuses the mind, allows you stay on the page as you're reading it, stay in the lecture as you're listening to it, stay in the conversation as you're having it, stay at your desk doing your homework. It allows you to focus. It does not deprive you of creativity, it does not take away your spunk. What you do with that focus is up to you. It is not addicting. It is not a gateway drug; it doesn't lead to drug abuse. Can it be abused? Yes, if you grind it up and snort it, it's bad for you. If you grind up and snort a tomato, that's bad for you, too. Can it be sold? Yes, it can be sold because it's illegal, it has a street value. Adolescents like to sell things that have a street value to them. Is it a good euphoric drug? No, it is not euphoric at all. It doesn't make you feel high. It has a poor future as a drug of abuse. People don't take drugs to focus their minds; they take drugs to get high. Hundreds of people die every year from allergic reactions to Penicillin, hundreds of people die every year from toxic reactions to aspirin; nobody writes big front page articles about the dangers of penicillin and aspirin. Ritalin can do as much good as penicillin and aspirin, and it's safer than either one of them. So, it's a big mistake to allow this kind of misinformation to interfere with proper medical treatment.

Talk it over with your physician. Don't rely on the press. People sometimes ask me if I believe in Ritalin. What do you mean? It's not a religious principle, you know. I don't believe in it or not believe in it. I am in favor of using it when it's helpful and not using it when it's not. I'm in favor of using it properly and not using it improperly; like any other medication.

Other qualities that you often see in these kids is mood liability. Mood changes rapidly; not the huge swings of manic depressive illness but mood liability. A tendency to worry needlessly. Worry is a way of focusing the mind. Worry is the mental equivalent of physical pain so a lot of these kids and adults are naturally going to worry because it's more engaging, it's more stimulating. It's one of the reasons they have trouble being content and happy; contentment is not riveting. You don't say he was riveted in contentment. You say he was riveted in worry; worry is riveting, and a lot of these folks just don't realize it but they are just constantly coming back to worry over and over and over again because it is so gripping. It is so painful but gripping, focusing. And, also don't forget the genetic component; you want to look for a family history of ADD or of manic depressive illness, depression, substance abuse; those are all genetically related.

When you ask, "What kind of brain does my child have?", begin by looking at Mom and Dad, and then Mom's and Dad's Mom and Dad, and then aunts and uncles. The whole gene pool. I often make a diagnosis in a child of, "I don't know what he's got but you've got it too." I don't know what to name this brain but you have it, too. And we see these passed-along collections of traits and symptoms. Always describe what you're seeing. There's so much more in the vast territory of the brain than we've been able to name, so always talk about target symptoms. Don't try to force it into some diagnostic entity. Our diagnostic entities are very crude, very poorly developed. Always talk about target symptoms; what are you seeing, behaviors, moods, subjective states of mind. That's your description of what kind of brain do I have. You don't need tests; just describe what you're seeing. You know your child, you know your students. That will generate the most meaningful brain description; then bring it to some expert. They can tell you if it fits under some treatable syndrome or not. What's most meaningful is the collection of target symptoms.

Everyone has these symptoms that I've been talking about somewhat so don't feel that if you've been relating to some of these symptoms that you have ADD. The whole country has these symptoms some time or another. I even think that there's something called pseudo-ADD, and this is culturally induced attention deficit disorder. If you don't have ADD when you wake up in New York City, you'll have it by the time you go to sleep at night. The pace of life in America today is such a whirlwind and we have so few stabilizing social structures that it makes all children look as if they're distractible, impulsive, and restless. Whether they have the biologically based ADD or not requires an expert's evaluation. That's not always so easy to do. The basic discrimination between the two, by the way, has to do with "does it exist in all contexts." Pseudo-ADD: if you take a kid or a family with ADD and send them to the farm in Vermont, the symptoms go away and they quietly plow the fields. You take true ADD and you send it to that farm in Vermont and pretty soon the whole farm is just hopping; it doesn't go away depending upon the context. That's the differentiating factor and that's what you want to look at in these kids and these adults.

The other kinds of brains with problems with attention or without, I summarize in my book under the headings Mad, Sad, and Afraid. An old teacher of mine in psychiatry used to say, everyone is either mad, sad, or afraid; and I like the simplicity of those words. Believe me, there are bigger words we could use, but I think those words capture a lot of the brain states that cause problems in children and grownups. And let me talk about some of the more common.

Under the heading "afraid," we see the various states of anxiety that are common, often with variations in attention, but which may be present without them. I want to mention a few and point out that all of these conditions also occur in adults. We're really learning more and more and more about fear and anxiety. The old paradigm was that all anxiety was the result of unconscious repression of an unacknowledged drive. So it was all put into this black box where you didn't know what was going on. That theory still has validity. There is an unconscious and there is repression, but we tend to talk about it now much more in biologically explicit terms. The diagnoses and interventions we make don't rely upon mysterious manipulations of the unconscious so much as they rely upon explicit reasonable manipulations of conscious mental life.

Let me give some examples: shyness. Shyness is a form of fear. Probably the simplest, most common, most time-honored form of fear is shyness. Shyness is very often genetically transmitted. Jerome Kagan at Harvard has done wonderful research over the past twenty years, really documenting this fact that shyness is many times inborn. Some kids are simply born shy and inhibited. Kagan can predict with some degree of confidence based upon fetal heart rate, how fast the little infant's heart is beating when it's still in Mother's womb, whether that child will grow up to be shy and inhibited. Rather than seeing shyness as a problem of emotional development, something Mom did wrong, Dad did wrong, the school did wrong, oh, this child has been mistreated, or something like that . . . more often than not, it's simply the way the child is, it's simply the temperament of the child. It is a great mistake to pathologize it, and say, "Oh, you shy child, we've got to work with you because we want you to extroverted because that is what the culture likes." It is very analogous in my opinion to left-handedness. We used to try to force people who were left-handed to be right-handed because that's what the culture deemed normal. Shyness sometimes comes under the same kind of misguided treatment. Kids who are shy simply should be helped to be comfortable being shy. If they want to be more outgoing, if they say, "Gee, I wish I were more gregarious," we might work with them in terms of social skills training. But if they're happy reading their book while others go to the dance, so be it. There's nothing to say that you can't have a happy life and be shy. In fact, some of the greatest contributors throughout human history have been painfully shy. One of my favorites was Emily Dickinson. Isaac Newton was also shy. In fact, more geniuses than not tend to be shy.

Another kind of fear state is an anxiety state, generalized anxiety disorder, which is a complicated term but describes a child you've all met and an adult you've all met. These are simply people who are afraid of life. I had an uncle like this. He was a brilliant man who majored in romance languages and physics at Harvard, graduated summa cum laude, then spent the rest of his life first farming then running a bowling alley on Cape Cod. He used to go out at night and literally hide under the machines. He was so afraid of life, so afraid of the world, because it made him anxious. There was no explicit danger. He just got worried and nervous whenever he was engaged in interacting in the world of business where he could have done great stuff. He was just too afraid to get involved; he got too nervous; he got too anxious. And there are children like this who are simply too worried about all the possibilities of things that could go wrong, children who carry the weight of the world on their shoulders. They worry about burglars and robbers, sickness and death, famine and AIDS and overpopulation. They just take all these worries and carry them with them. Then they're worried about what could go wrong in class, what if I say the wrong thing, what if I get the wrong answer, what if I . . . And this is not the kid that has been scared by you. It's very hard for these kids to get fear out of the classroom because the fear comes from within. It's not coming from without. They have this fear generator; it's like their alarm system is set too high. It's like a smoke alarm that goes off when someone lights a cigarette on the other side of town.

This, again, is a biologically based, genetically transmitted condition. These kids can be helped. We have both non-medication and medication approaches; the non-medication approaches, cognitive behavioral psychotherapy, tends to work very well, along with exercise, some breathing exercises and physical exercise. Sometimes in more difficult cases, the addition of medication is necessary, but medication is by no means the mainstay of treatment. It's very much helped by non-medication intervention. Again, for a parent or a teacher, you want to know this isn't something that you've done wrong. Don't blame yourself or blame the child; that just makes matters worse. These anxious, worried children are very often born that way. Now, can it be brought about by life events? Yes, indeed; post-traumatic distress disorder is a well-known condition now and often, by the way, occurs with ADD because ADD kids sometimes set themselves up for abuse. Sometimes their parents have impulse control problems, so you get the risk factors from both sides. But trauma, physical abuse, sexual abuse, witnessing traumatic events, living in traumatic situations can change your brain, and brain chemistry, so that you become fearful and live in a state of sort of subdued terror. You're constantly waiting for the next bad thing to happen. It can happen in childhood, and continue into adulthood. I call it a brain burn. The bad thing burns your brain and you never see life the same afterward. You are vigilant, you are waiting for the next bad thing to happen. You imagine recurrences of the event, and avoid situations that are in any way reminiscent of the event. You become numb in situations of high emotional content, you go blank, you lose the ability to feel.

Trauma can change us, burn us in terrible ways. These children feel fear and worry at a level that they can't cope with, so they become avoidant, numb, hypervigilant. Treatment begins by recognizing what is going on. Sometimes the distracted state of ADD and the disassociated state of post-traumatic distress disorder will look a lot like each other, so one group gets confused with the other group.

Treatment of PTSD is effective but not definitive. In other words, we don't have a cure but we have treatments that help a great deal. One of the more promising new treatments is something called EMDR, eye-movement desensitization and reprocessing. It sounds strange; you look at a therapist's finger and you think of the bad event as the finger gets moved back and forth, but it seems to be extraordinarily effective. Something about the eye movement integrating the stuff across both spheres of the brain; however it works, we really don't know, but it seems to work. A lot of research is validating it, and it seems to have a sort of detoxifying effect on painful memories. The beauty of it is it's short, time-limited, and seems to be effective. It's still, under investigation but it seems to have helped an awful lot of people. it was developed by a psychologist, Francine Schipero, out in California, and is now finding widespread application.

There are other more traditional approaches that are helpful: cognitive behavioral therapy, and certain medications.

Phobic states we see in children, states of fear, social phobia, afraid to be in groups, afraid you are being watched. Simple phobias you've all heard of, fear of snakes, fear of heights, that sort of thing, are not as much of a problem. The social phobia and the school phobia can be disabling. These are fear states that effective intervention can help. Panic attacks we don't see as commonly in children but we can and, if you've ever known someone with panic attacks, it's terrifying. You suddenly feel overcome by the physical sensations of panic, for no apparent reason. You tremble, start breathing fast, your vision gets blurry, knees tremble, heart is beating fast. You feel like you're in extremis, and once it's happened you start living in fear that it will happen again. This can happen with children, and we have treatments that are effective.

This whole category of afraid, and fear that is coming from within. Instead of blaming yourself or the child or society, consider that there may be biologically based conditions. Consider that there may be medical interventions, psychological intervention, that can help before you jump to the conclusion that you know what is going on.

Very often people think that they know what's going on in a child but they don't. I know this from working with many kids with ADD who don't come to me for diagnosis for years simply because the assumption was made that the child was lazy. The assumption was made that this kid just needed to try harder and shape up. Those kinds of assumptions can be very damaging because you lose time. And in childhood, time is precious.

Let me look at the category of children we call "sad". The whole world of childhood depression has been a world that people have tended to overlook for various reasons. Probably the most understandable reason is that we don't want to see it. We don't like to think of children as being depressed; it's upsetting. I think of children as the wellspring of hope and positive energy. I know my three little kids, I live for them, and it would break my heart to think of one of them as being depressed. On a theoretical basis, the psychoanalytic line of thought had it that children couldn't get depressed because they didn't have a superego to attack the ego and that's how you got depressed. Well, talk about theories standing in the way of reality . . . The fact is that children can get depressed, usually older children. It's usually in adolescence that we see depression. Although you can see it in pre-pubertal children, that's not nearly as common.

The lifetime risk of depression in children is that one in five kids will get depressed at some point during their development, defining childhood as zero to eighteen years old. One in five children will go through an episode of major depression. Feeling that they are worthless, feeling that life is terrible, feeling perhaps even suicidal, every day. It's not just a passing period of sadness. Major depression means that you just feel listless, apathetic, cynical, negative, low-energy, "why bother," if not suicidal. Every day, and it lasts on average nine months, so it's of long duration and it's intense, and one in five children go through this kind of thing usually during high school years.

The worst outcome is suicide and suicide has tripled in adolescence between the sixties and the nineties. But, failing suicide, what is much more common, is simply what we call morbidity, that these kids lose a lot. A whole school year being depressed, you lose a lot in terms of cognitive development, academic development, social development, even physical development; you don't grow as well when you're depressed, and you get sick more often. And, you're at great risk for negative things happening, such as accidents, drug abuse, getting involved with the wrong crowd of people, having things happen in your life that you wouldn't want to have happen. Depression can scar you for a lifetime. You spend a whole year as an adolescent being depressed. You may never really get back to thinking that life is an enjoyable entity. You may never really get back to thinking that life is something you want to participate in full blast. You may never get back there, you may spend the rest of your life in a defensive holding reaction because of that episode of depression, and, if you've been depressed as a child, the odds are twenty times more likely you will go through another episode of depression as an adult. It is a risk factor of major proportions.

If a child has been depressed, does that mean he's going to have a rotten, horrible life? No, it does not. Some of the greatest contributors to human existence have struggled with depression, and thank God we're at last beginning to take some of the stigma off of that. I take my hat off to Art Buchwald, Mike Wallace, and William Styron, who recently publicly announced that they have struggled with depression for their whole lives. Mike Wallace says he will not let another day pass without taking his anti-depressant medication. This is a medical condition that affects millions and millions of people, and many of these people are top contributors. You look through human history, at the history of literature: more writers than not have struggled with depression. You look through the history of science: great scientists have struggled with depression. Great statesmen: Winston Churchill was notoriously mood disordered, not to mention learning disabled. These kinds of brain differences are in no way incompatible with high achievement. However, they are risk factors for having trouble in life, and it is better to identify it in an adolescent so you can get that person some help.

We have good treatments for depression. We don't have cures, but adolescent depression responds well to psychotherapy, interpersonal psychotherapy, cognitive behavioral psychotherapy. Medication is less effective in adolescent depression than in adult depression but it can be helpful. The key is to identify it. Education alone can help this child. Simply telling a depressed adolescent, "Look, this is not the way everyone is, this is not the way life is always going to be, this is a different brain state," can take a whole layer of the depression off. Because they're often overwhelmed by it, education can give them a different viewpoint that instills a certain amount of hope. Knowing that it is this passing brain state, and that there are things we can do to help it pass more quickly. And, knowing that it may very well occur again, and, if it does, there's help again and it doesn't mean the whole world is collapsing once more. If you know, if you give it a name and you give it some perspective, it becomes more manageable and, again, it's in service of these questions: "What kind of brain do I have, and what can I do to manage it best?" And, if the kind you've got is the kind that is given to depression, you should know that and then what can you do to manage it best. And there are practical steps you can take instead of feeling caught off guard by it, overwhelmed by it, sent into the outer realms of despair and alienation.

The great enemy of the depressed person is disconnection, being cut off; that's when suicide happens. It's not feeling bad. As long as you're connected, you're okay; it's when you're totally cut off, that's when the real negative outcomes occur.

Finally, let me just wind up by just talking about "mad". Under the heading of "mad", problems with aggression. We are dealing with a huge number of aggression problems in childhood today. There are all kinds of reasons for it; one of the reasons is the breakdown in the social structures. Kids don't have the kinds of families they need, neighborhoods they need, stabilizing social structures that they need. Another is the blitz of media that kids are subject to everyday. The incredible blitz of TV, radio, newspaper, general high-stim, high entertainment value but de-stabilizing media television kids consume all the time. And a third major factor, in my opinion, is the breakdown in language. Kids are not learning the language skills they need. Language is a great mediator of violent impulses because if you can put a feeling into words the chances that you will act it out violently are dramatically reduced. If you can name a feeling state, the chances that you will act it out violently are dramatically reduced. Children are growing up today not learning how to do this, they are growing up today not learning how to talk, they don't know how to have a conversation. They have these mono-syllabic grunt interviews that is not conversation. They don't sit down and have dinner together. They don't engage in listening and speaking, i.e., conversing. They are not read to as little children, they don't read themselves. They passively consume language on television or in movies that does very little for language development. You read the scripts of TV and movies, and they're very primitive, simple stuff. The best movies won't rely on words, they rely on images and sound effects and special effects. They're not a resource of verbal development at all. The prisons are full of people with undiagnosed learning problems, poorly developed language abilities.

If you can have family dinners, if you can turn off the television (not totally, instead of 8 hours a day have 8 hours a week), if you can make sure your child gets plenty of exercise and the right amount of sleep, the chances of violence will go way, way down. When I was a kid, I used to do something after school that is now almost obsolete—I used to do something called "go out and play." Now, kids don't do that, they don't have the safe neighborhoods, they don't have the form, the structure for it; they go home and they plug into some electronic device. They don't get out and interact with friends, make up games; they don't get the exercise they need, the fresh air they need, the social interactions they need, the verbal skills that come with social interactions. None of that happens. Or, they're carted off from one enriching activity to another. If they have parents who have the resources, they're taken for their enrichment after school. This is a problem. The solutions, to me, come back to forms of connectedness—finding a neighborhood, finding a safe sphere for developing these kinds of skills, finding the stabilizing connections whether it be the church, the family, the neighborhood: things that tend to hold us in place and keep us from becoming violent. Helping us to use language; helping us to have an ability to modulate the aggressive feelings that everyone, particularly males, have – problems with aggression are much more a male problem. The prisons are 95 percent male; we boys tend to have a hard time with aggression. If you set up the kinds of practical steps that I've just mentioned, and any family can do this, you can't remake society but you can remake your family; you will drastically reduce the chances that that child will have problems with aggression later on. We are living in times of major problems with aggression.

I have talked to you about attention, I have talked to you about anxiety states, I have talked to you about sadness, I have talked to you about aggression. I hope the overarching message has been clear—the question I hope you will ask of yourselves, your students, your children, is, "What kind of brain do I have?" And as you generate answers to that, just be describing; you don't have to go to textbooks—I'm not talking about some scientific description. Just describe: what are you good at, what are you bad at, what do you struggle with, what do you do easily? An inventory of skills and vulnerabilities; and then, how do I manage that brain best? For management you may want to get expert consultation, because there are probably solutions that you don't know about. Once you've raised the question—what kind of brain do I or my child have, and you've made your list of inventory, then go to an expert and get a consultation on how to manage that brain best. The answer to that question can change the life of your child and your family. I've seen it happen over and over again with kids with ADD, but that's not the only use. Millions of children can be helped who aren't being helped now. What you gain in knowledge at this conference, share with others, ask and answer this question—"What kind of brain do I have, how can I manage it best?" It is a very hopeful time that we're living in now. We have knowledge that we haven't had before. This is good news. The knowledge that you're going to get at this conference is *good news*. It's reason to be really happy, to rejoice, for our children and for ourselves. It's exciting; I hope you all will go for it and enjoy it.

CHAPTER 2

What Technology Holds for the Future

Mrs. Eldridge's Arm

JOHN GAGE, PH.D.

> *We are caught in an inescapable network of mutuality, tied in a single garment of destiny.*
>
> —Martin Luther King, Jr.

Today, I want to talk about a couple of things. I want, in fact, to change the title of my talk. Let me move my computer up here so I can work. My old topic was, "What Technology Holds for the Future." My new title is, "Mrs. Eldridge's Arm." Now, for those of you who missed this morning, Mrs. Eldridge's arm played a major role in the life of a second grader. An arm around someone trying to learn to read at the right time is an image that a distinguished author and psychiatrist at Harvard, Ned Hallowell, maintains as his inspiration. At moments when things are difficult to understand, he remembers Mrs. Eldridge's arm as a major influence that protected him from other kids making fun of him when he couldn't read, other kids making fun of him when he couldn't get to grade level (they didn't care about grade level, all they knew was he couldn't do something easily that they could do), and her arm made it all right. Well, you know, when you think about it, she probably didn't put her arm around him everyday. It probably didn't happen 100 times. It might even have happened only a few times. But, the symbolism of it, the power of it, that reassurance that what you're doing to make sense of the world, is, in fact, all right, is what I want to talk about.

We heard this morning that you want to do something for ADD kids, that you want to help preserve the good stuff and help manage the stuff that gets in the way. Well, that's the same with technology. When I talk about technology to people, people will say, "Well, isn't it great?" A lot of people divide into several camps, and I know the camps pretty well. Some will come to me and say, "It's just wonderful what this technology does; it can transform the way the schools work." Now, I think that what we want to do is let the kids read and write better, and technology is a tool to do that. People say, "This technology is great." I have to keep telling people, when you add technology to something, all of us who are, just by character (the kind of brains we have), optimists, say, "It's going to fix all the things we don't like; it's going to give us this new power." We forget that it's also going to change all the things we do like, and, in fact, might ruin some of the things we do like. So, we want

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to preserve the good stuff, and we want to manage the stuff that gets in the way. That's the direction I want to talk about in technology.

Another topic is the worst learning disability: fear. Technology seems somehow, for another clump of us, to bring out this horrible, sinking feeling. "This is going to be a disaster. . . . It's not going to work. . . . I'm going to look like an idiot." That fear of technology is often well grounded—"The stuff is junk, it doesn't make you look good at all, it's hard to learn, a total waste of time, and by the time you learn it, it's out of date anyway." So why should we bother with this? I want to touch on that topic.

And then I want to take Hallowell's words about reading. How does he read? He nips through it, grabs at it, circles around it, and "osmoses" it. He osmoses it, he sucks it in, he just about picked up the book and chewed on a page to show you the attacks he would make to understand what's inside. It's a strategy, it's a way you develop with or without Mrs. Eldridge's arm, it's a strategy you get to make sense of the world. What happens a lot is that we are all frozen by early success. We all try out some technique; it works, and from then on, that's the technique to understand the world. Well, we've got some new tools coming; we can't be frozen in the old ways in which we once were successful. It's a bad thing when a kid learns that a cute smile and a wink, that which he used to get parent's approval, is going to be his technique throughout the rest of his life to get approval. We all have friends like this who maintain that cute little trick they learned at three, which somehow doesn't look so good on somebody our age, but they keep doing it. Well, we've got to go through new ways of grabbing, nipping, circling around, osmosing, and trying to understand things.

How many years ago was that for Bernice? In our lives, there are vivid moments; you can take yourself back to a moment in your life and you can smell, you can see, you can feel the texture of the bed cover. It just comes back to you. But then, can you remember the day after that? What were you doing last Wednesday afternoon? So vivid moments occur: the moment when a teacher's arm comes around you, vivid, moments occur. Do we have anything in this technology that lets us build vivid, memorable moments? When we look back on our lives, there ought to be vivid, memorable moments. We don't want to have relatively grey days in which we can't remember anything about what we did, because it all is of a sameness. So, we have to do something, and will the technology make any change?

So, this led me to some philosophical quotes; the first is from Isaiah Berlin. Now, Isaiah Berlin, one of the most imminent philosophers, a historian of the philosophy of ideas, said, "Philosophy comes from the collision of ideas that create problems. The ideas come from life. Life changes. So do the ideas, so do the collisions. The collisions breed puzzles. But, when life changes, these puzzles are not so much answered as die away. Ideas perish from inattention far more frequently than as a result of being refuted by argument."

A nest of philosophers is nothing but a bunch of argumentative people. You could say that they're looking for excitement; they're quiet people, generally, but they argue often to no end, because the ideas beneath them change. That's the world of technology. What we thought we had a grip on and argued a lot about, there's not a person in this room, however sensible you may be, who has not descended into one of these "Is the Macintosh better than the PC?" arguments. We all know better; we all know that it's just a momentary time in history. The stuff was invented by some kid, you know, and they put it up on the machine and it worked, and they all vanished off to some new company. Yet we're left behind arguing about the archeological wreckage. Well, it's going to die away; something new is coming, and the new stuff is going to be invented by our kids.

Now, a comment from Donald Davidson, a philosopher of language. "Language", Davidson says, "two people need, if they are to understand one another, the ability to converge on passing theories about total behavior." By that he means, if I meet you and I don't know what language you speak, I try you out. "Would you pass the water, please?" If I get water, something good's happened: I now have a common language. I've calibrated where we stand. If I don't get anything, I know we're in deep trouble. If I get salt, I know we're in a different kind of trouble. Does this person speak the same language? Do they have the same set of assumptions? We're making up passing theories about total behavior all the time. When I mentioned the river rising earlier today, every New Orleans person perked up with a story about the river rising, because some people live right where it's rising. Had I not mentioned that, I wouldn't know how deeply felt the worries about the river are; had I not mentioned that, I would never have understood a whole set of behavior "river people" know a lot about.

Davidson goes on to say, "We've erased the boundary between knowing a language and knowing our way around the world." We must give up the idea of a clearly defined shared structure that language users master; then, after they've mastered it, it's applied to cases. We talk about technical objects today that didn't exist a year ago.

You're looking at software here written by a kid 20 years old, 20,000 lines of code. Mark Andreason at Super Computer Center, in Illinois, hacked this in 1994. Mark Andreason is now 23, worth $400,000,000 in the same pair of jeans he had when he hacked this. He hasn't had time to spend the money. He's on the cover of Bike Magazine this week. Mark Andreason, a student, wrote something useful for all of us in computing. He used a civilized metaphor for what a computer is. It's a page with text on it that scrolls up and down, and you touch things on it, and it takes you somewhere else. No manual, nothing complicated. We all understand what text is, and now we put images in. It's like *Newsweek*—you touch an image, you touch a word, it takes you someplace. When he wrote that code, he put it up free on the Internet and made it work on all computers. It erased a lot of the language problems we had. The one sentence that I think is always the death knell in the schools is when you ask somebody what do you find that's useful and he says, "I have a wonderful program. It's a Shakespearean program. It lets you see the Proscenium. It lets the actors move around." The first question everyone always asks is, "What does it run on?" Knowing in their heart that if they have a PC, the answer will be MacIntosh; if they have a MacIntosh, the answer will be PC. That question alone stifles the use of these new tools more than anything else. We have to have a new common way to share understanding. That's language.

Now, we can also have something called an "adaptive conversation." Not only do we have a civilized front end to all of this network digital library "stuff" out there, but we have a way to talk back and forth. We have a conversation. That's something new; we've not had that before. There aren't telephone lines in the classrooms, and there aren't conversations outside the classroom. There are a few when the parents call up and say, "My daughter claims there's no homework; is that true?" Those kinds of conversations. But we don't have adaptive conversations that involve the teacher, the student and the parent. It's a unifying context, so what I'm going to assert is what's new and interesting for us is the arrival of everything becoming linked on network.

My last quotation refers back to Donald Davidson. Davidson let us think about the history of language and thus of culture as Darwin taught us to think of the history of a coral reef. Richard Dardy, who has been at UVA, said, "Old metaphors are constantly dying off into literalness." Now that, to me, is a key observation, because what we're searching for in talking about education, in talking about children, in talking about technology, is a metaphor—a way to get a grip on what this "stuff" is.

Ned Hallowell used spatial metaphors like "some of you are not here." But we know what that means. It doesn't mean we're not "here"; he's using it metaphorically, we're wandering. Some of the best minds tend to wander. Here's another one: "Pay attention." What does that mean? That means that there is a sort of accountant's view of what attention is. There's money involved somehow, the ticker's ticking, I want that attention to be paid, or there's a cost to you for attention. Or, how about, "I caught your attention." Well, that's different. That means I snagged some part of you as you went by. I caught you, I hooked you. "Attention wandering" is Ned's new name for what people with ADD do, and he's precisely right. Nobody consciously chooses to go elsewhere; people just let their curiosity, their exploratory nature "wander," and that's what generates new ideas.

So, these metaphors are at the foundation of new ways of thinking. My last philosophical discussion is, "What in the world is going on here?" We've lived in a world (we, the human race) that did quite well, thank you, for 60,000 years just speaking—the Homeric tradition. It wasn't written down, there wasn't paper around, no laser printers, you know. You could press things into clay or you could pound papayas into a paste and dry it. This was expensive. You could kill the calf, stretch the skin and write on it, and that worked pretty well. Some of those scrolls have lasted a very long time. But that writing invention was only 6,000 years ago.

For a very long time human beings communicated only orally. The oral tradition remains in every classroom; the oral tradition of someone speaking, someone listening, or telling a story. We're a story-based people. Many, many tens of thousands of years were spent around campfires, where people told stories. Now you add writing—overlay doesn't displace overlay. With writing, science becomes possible. We now can say, "I can repeat precisely the words." I don't have that Homeric tradition of poetic phrases that repeat. That's just a nomadic way of remembering Achilles, the many splendored; repetitive phrases you have and all those oral poetry traditions.

Why in Somalia did no one ever pick a pamphlet off the ground when the military dropped them saying, "You poor Somalians, you should stop having tribal warfare." In Somalia, the entire culture is oral. Audio cassettes are how the poetry of the leaders are sent around to all Somalia. It's an oral tradition; they don't care about what's written, it's oral. So, there are, in the same odd way, those Koranic oral. That's poetry in an oral tradition. It's not meant literally; it's a mental hook to remember long stretches of poetry.

We overlay writing, and suddenly we can compare precisely what someone said, what someone did; we can repeat things. Then, forty years ago, Admiral Hopper and some other people invented a way to take symbols and make them land on a chip and have the thing "do something" and make a machine out of words. It's called *executable writing*. In some sense, the Constitution was executable writing, but the machines that executed it were lawyers. Now that's an unreliable, weak read in the whole operation, so it generates some different versions of things.

The idea that you could take words and turn them into machines is what's underlying all this computer stuff. You can write something once and put it on a computer and it will do the same thing on millions of them. Now, we have something new. We've added this capability by lining all these computers together to create some new kind of intellectual "something." It's like an animated *Newsweek*. It links words to other words. It's this hypertexted reference sort-of-a-thing. We're just at the infancy in this. Anyone who spends time on the Web and can see the most recent creation of some kind that lets you visualize how a nuclear reactor works, or see real data from a satellite that shows the temperature outlines where there's effluent from the plants upstream, upriver where you can see instantly from sensors around the world how the world is changing at this moment. We're creating something new. It's not the same as the other, older systems. It's just different. It's not going to displace them. It's going to amplify them and alter what we do.

So what we have today, in all we do, we have some marks on paper, we have sounds, we have hierarchical notation and mathematics. Where you have a good idea, you think up a nice symbol for it, and then you use that one to think up some more complicated idea and the newer, higher notation subsumes the notation below. We have sketches and diagrams and maps and papers. Everyone here knows how to draw. You could draw a map of New Orleans right now that would be very interesting. We'd have 500 different maps, but it would be a way to convey your understanding of the world. We have images, we have motion, and we have an entire attitude about space. Some of you aren't here right now. We use these spatial metaphors constantly. All of this, at this moment, today, can be conveyed across a network. Marks, sounds, mathematical notations, sketches, diagrams, maps, computer-aided design drawings, movies, images, global positioning satellite stuff that says where you are within one-half meter or one-tenth of a meter. All this works right now, all flows back and forth on this network.

Kids have access to this. This used to be the domain only of spies and killers and traitors, the military, and the intelligence agencies. In Desert Storm, the only way the generals could tell where everybody was can now be seen. Something has changed. We have a complete set of rich things now that we have to make sense of, that we have to be guides for. That means we have to spend time reading and writing—not learning about the innards of a PC but doing the higher, more important job of applying our intelligence to understanding all of these forms of intellectual technology, and guiding the kids as they explore it themselves.

Now, intuitive physics is a world not much present in the computer systems, but very present in the heads-up systems in airplanes. It's a world of all the laws about objects you learned as you grew up. I have a quarter in my hand, and I hold the quarter out, and I drop the quarter. I drop the quarter and it falls—physics works. Now, if I took that same quarter, held it in my hand, released it and it fell at a very slow rate, people in the front row would be very interested. People in the back couldn't quite see it, but they'd see a stir. Something strange would have happened—gravity didn't work.

We've learned from age three that when you drop stuff, it breaks or it falls. That's why kids love to push stuff off tables. Boy, isn't this fun, you know, it works! We have an innate sense of physics. If I release the quarter in air and it floated, you'd stand up. I mean, you'd say that's completely beyond the intuitive sense of how the world works. Having physics in the interface of the computer draws upon the human knowledge and capability. You don't see it much now in any of the stuff you've got in the schools, but it's coming. That's what's going to transform, just as the Web browsers transformed the ugliness of the Internet into something usable by anyone instantly.

Anyone in this room could come up on this computer, on the Internet, dial at this moment, and click a button and go to the Library of Congress. You all know how, but you've never done it before. You see somebody do it once, and you now know how. So, there's an intuitive feeling for the metaphor of what a computer is that leads us forward in inventing new things. We understand and construct the world by interacting with it. All the stuff we've got in the schools, until now, doesn't really do very much of that. It interacts with a little piece of software on my Mac or PC right now. When you bring the network into play, you bring the world into play. You bring everything imagined at this moment by the NASA satellite, the Russian, the French satellites—it's all right there.

I'm in the computer business, so we're in the business of making ideas into things. Somebody's mind wanders, they come up with a new idea and try to turn it into something to make. That's what manufacturing entities do—that's what tens of thousands of American companies and millions of conversations each day are about. What can we do, can we make something? This is where the power of the metaphor comes in. We ask, "What is a computer?" Well, that's easy. It's a processor chip, it's a memory chip, it's a chip that speaks to the network, and it's a chip that speaks to a screen and a keyboard. Is that a good answer? No, it doesn't tell us anything that a human being wants to do with any of this. We need a metaphor to transform the transistors and wires, the "stuff," the plumbing, into something a human being can use. So, every time you say, "I wish this thing would . . . ," you are creating possibly a new product. If you think that somebody else has already thought of it, you might be right half the time, but you're wrong the other half of the time because only you and only the eleven-year-old kid sitting next to you is in this particular set of circumstances at this moment.

So, if I could build a device that would let everyone who lived near the river know right now how soggy the ground is and what state that river is in, and it cost five dollars, I'd have a product that would sell right in this room. Gee, do I have to go home to find out if my living room's flooded, or call my mother? No, I can see right here. So, there are products, there are things, there are objects that you can imagine just by creating a metaphor. Let me give an example.

Doug Englebart, in 1967, thirty years ago, said: "You know what a computer is? A computer's a desktop, it's a screen, it has words on it, it has little icons." He invented the mouse, and in 1968, twenty-nine years ago, in a crowd three times this size at the IEEEACM conference in San Francisco, Doug Englebart got up in front of a crowd and on a screen this size showed exactly what I'm showing you here. Words that scroll up and down, icons, a mouse (he invented it), little ways of selecting something and then doing something to it, and select-operate syntax. That was thirty years ago. All we've done for thirty years with these computers is make them smaller, cheaper—same metaphor. Useful folders (we understand folders), desktop metaphor—you don't have to explain it to somebody: "Look, there's a little folder, oh drop something in it, look, it goes inside it." We already know about those objects in the world; putting them as a metaphor on the screen lets us use the device.

Which is another metaphor. The computer doesn't just add up salary figures; it lets you draw. In 1963, a grad student at MIT, Ivan Sutherland, said, "I'll show you on a screen the way you can draw a line and, if your hand wobbles, the computer will straighten it out." His Ph.D. dissertation in 1963 was called "Sketchpad." Instantly people said, "If the computer can help me draw, and I'm building a bridge, this is great. I can build a bridge much more quickly than I can by using a pencil. And the computer can tell when I've drawn that structural element, that if a truck goes over,

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how much it will bend. I know all the equations about this. Until now, I've had to use all these rules of thumb. If I can draw and the computer can tell me that that's a wire on a circuit board and I know how much current is supposed to go down it, I can tell if it's going to burn up if I build that circuit." Circuit-board design suddenly took off. Chip design—all a chip is is a map of Manhattan. Actually the new chips are 30,000,000 transistors. A transistor is just two. It's just a cross in the road. It's two paint stripes going over each other on a chip. The way the stuff works, when one color stuff lands on the other color stuff, it makes a transistor. 30,000,000 of them. That's about the road map of the world in complexity. Yet every day in a high-tech industry, somebody designs a chip with one million, five million, 10 million transistors on it and turns the crank and it builds it. All because someone said the metaphor for using the computer is a sketchpad.

Then this newer idea, this hyper-book idea—science fiction writers wrote about it forty to fifty years ago. Ted Nelson, Tim Burners Lee, and Mark Andreason made it. Now that led to the World Wide Web. Now you can say, "What is a computer?" It's a conversation. I'm on the Internet. I can speak into this device: my voice can be digitized and go out in packets. Suddenly I'm not a computer anymore. We have other words for things like that. Today we use the words *telephone, cell phone, television* and *FAX*, as if they're separate. They're all the same thing—memory processors linked to the net display and input. So, I can take a cell phone and run the same programs that are run on this PC. There's been a change in technology. A cell phone isn't a phone. It's a computer and a radio. So, we're seeing something happen right now that's a shift in the understanding of the objects, the metaphors underneath what we do, what's going to be valuable, and what's going to let your students have lives in the industries of the next five to ten years. The students who are going to do really well are the ones who have the quirks of mind, that innovative idea to think of a new metaphor. The computer is a baseball. Well, let's try that one for a while. Does it make any sense? Maybe not, but then again, maybe there's something there that we ought to think about.

I am going to show you some of the things going on in the world that are new. What do the kids have out there to play on? Here's a link, I'll just click on it. (Speaker refers to large computer screen.) It goes out across the net and brings data across. I'm on a dial-up modem. There's nothing fancy here. I'm getting 2,000 bytes a second. This is about five minutes ago on the West Coast. It's 12:05, I think, and this shows 12:02. So we ought to be two hours later. This is a snapshot, real data, from San Diego; you could do this same for 100 cities around the world. It shows us right now what traffic is in San Diego, greens are going 55 miles per hour, reds are going 5–15. We can just pick someplace; each dot is a sensor embedded in the road. In New Orleans, the waterproof sensors embedded in the road tell when you get close to a traffic light and say "traffic light, turn green." You paid for them. They're sitting in the roads all around. There are sensors in the levees. There are sensors in the river. Here's a bunch of sensors. Let's pick one. Let's see, we're out near the airport here; let's pick this guy here. I send a message across the net. Southbound Hwy. 15 at Arrow Drive. It's an intersection and it's Monday at 12:04, so it just gave me a two-minute-later data slightly more updated. It tells me that in the main lanes, one lane has 120 vehicles an hour, one has 1,080 and one has 1,920 and in one lane there are clearly criminals—traveling at 84.4 miles an hour in the fast lane. That's real data that just came from a sensor.

We could go to the Pacific and sample buoys off Honolulu, and that would tell us the water is 80 degrees. Get on a plane. The world's coming alive in a new way.

This is instantaneous real-time data. From this, a kid exploring can begin to get a picture of the world that's different. It brings up some very interesting questions, actually, if you look at it.

Let's see if the ocean link is working. This goes to Germany, so if it doesn't answer in a minute, I'll stop. Ah, something's coming. . . . So, what we've got here is a sudden way to see things that really hasn't been accessible to us. We wait until the six o'clock news to get an idea of the storms going across the central part of the United States. If you're about to get hit by a tornado, you sure don't want to wait for the six o'clock news, particularly when you know that this stuff is coming across this little flimsy phone wire, a snapshot of a minute or a second ago, showing you just where every tornado is anywhere in your region. So, this is a pretty picture showing you the weather; my guess, this is as of a few minutes ago, a satellite picture over Europe. This is just one of 10,000 sets of sources of information. This is something which is useful to a teacher, because you can tell a kid who knows what this is by seeing TV at night that they can now play with this. They can probe down into surface conditions in France. It looks like they're having a little bit of a cloudy day in Paris here. You know, they can probe this and get images from television cameras on the ground. They can build their own model of what the world looks like.

I can hear mumblings out there from those of you in New Orleans who have been for two weeks in the rain, saying "Italy's looking pretty good right now, isn't it?" This is the sort of material that allows us suddenly to have a different feeling of involvement with the world. I first was interested in linking schools to the Internet, because a grad student in education at the University of Minnesota went to this typical Minnesota school that looks like a bunker. When a heavy snowfall comes the kids can be warm. This student put a Web page up for every kid in class, and the kids put their poetry up. Then this grad student did one more thing—wrote a program that looks in the log files. When I touch that map in Europe or I touch the San Diego site, it knows my Internet address because I have to tell it where to send the picture. The log files track who reads your stuff. So, he wrote a program that told the kids who reads their poetry. A kid would come in in the morning and find out that overnight 15 people around the world or, for some kids, hundreds of people, read their pages. They'd look at the list and ask, "Where's Singapore, Japan? Somebody in Japan, somebody in France read my poem!" The poem of a child in a remote rural school in Minnesota was being read by somebody in Japan. A complete shift of world occurs at that moment.

In fact, I probably should go to those pages. I'll find the citation for you, because it's really great to look at this. The teacher assigned the end-of-the-year project. I want everybody in this room now, (we've worked on the Internet) we've had these Web pages, and you've published your stuff, it's great. There's a report to be done. We divide the grade class (11–12 year olds). We're going to have topics. What do you want to write about? You have to do something on the Internet. Dinosaurs, all right that's good. Firemen, soccer, Australia, and then there's one that I like, meat-eating dinosaurs! Then there was one about the comet. I want to say the Solomon Levy comet, but it's not that. It's the comet that struck Jupiter. This was in 1994. I'd say it's safe to say that no one in this room knew a comet that was going to hit mid-95 was headed toward Jupiter. NASA did. NASA had all these simulations of what happens when a comet hits the planet. That's why the kids liked it—explosions. It was great stuff. So, the kids did their report, and the report is just the right idea. The kids said, "In July there will be an explosion because the comet coming from far outside the solar system will strike the surface of the planet. Our physicist, Professor

Paul, thinks that it's going to be (and they gave a number of how big an explosion it is), we're going to prove him wrong." Now I don't care that Professor Paul chairs Astrophysics at Cal Tech and they don't care, they're eleven. They're in the conversation. They're doing something that treats them as an adult. They can argue with a university professor. Try to get an appointment with a Tulane professor for an eleven year old—not easy, but suddenly they're equals on the Net.

You've all seen that cartoon with the two dogs where the dog on the computer turns to the other dog and says, "On the Internet no one knows you're a dog." On the Internet, no one knows you're a child. If you're coherent and you write well, you're accepted in conversations you would normally be excluded from. Now, there are dangers here. You can go off and pretend you're 18, extraordinarily handsome and say flirtatious things that you learn from watching "Baywatch." There are a number of eleven year olds and twelve year olds who have written that "Baywatch" dialogue down and are going to go try this thing out here on the Net. In theory, they meet other eleven year olds and twelve year olds. There are all sorts of new avenues for this, but the children begin to be able to take part in a new, different kind of a world.

On the technical side, my boss, Bill Joy, created most of the TCPI protocols that you ran back in 1977. He did the implementation that went out to the world, and he's watched the shift of things. So, Joy said in 1995, that we are at a point in this technical world (at least the computing and telecommunications part of it) that's very much like what happened in 1982 with microprocessors. He said we're at a point of technical discontinuity. We've been building systems of computers for twenty-five years from a common set of concepts, but now most of the concepts are changing. Now, for those in the computer industry, here's what that means, here's a way to get a grip on these changes. Imagine it's 1982, you're going to list all of the companies that are important. Companies that do things in computing and telecommunications. It's pretty easy to make a list—IBM, that's one. Let's say we're going to go five years into the future, oh ten years, 1992. Who's going to be around in 1992? All right, let's make a list: IBM, pretty good bet, DEC, pretty good bet, Honeywell, Burroughs, Wang, Data General, Unisys, maybe Fujitsu, Hitachi, and Zemons. That's the list.

Let's name the companies that matter, where our kids will have jobs five years from now. You teach high school; well, someone who is not yet in high school is going to be looking for a job five years from now. Someone who's a freshman in college five years from now will be in graduate school, looking for a job. Who are the companies five years, just a blink, from now? Well, if you take a piece of paper and write a list of ten, my suggestion would be leave five blank, just like Netscape. Who heard of Netscape two years ago? Nobody. Now Netscape is a dominant force in software. We're just at that moment and it's brought about by the interconnection of hundreds of millions of computers essentially free. I'll modify that, but very, very cheaply on the Internet.

We have to change things. We have to change the way software is done. We live with terrible, terrible software—everyone of us. I use this Windows 95 machine, and it crashes two or three times a day, it just crashes. We've been brainwashed to think this is normal. This is not normal. This can't continue. This is just not right. It's bad engineering, and people are making too much money.

People in schools are inundated, and it's a crime putting computers in the schools where somebody decides that everybody's got time to read a stack of manuals. Here's the way to get a grip on whether you want to do anything with this computer technology. This is a graphic. Joy says, "Simplicity and elegance of software

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are critically important." To prove this, he went to the bookstore. It would cost you a lot of money to do this; but Joy's got a lot of money so, he bought these books to show. The column to the left is the column of books that one needs to buy to be able to write a program for the Windows platform. There's *Windows, Windows Object Interface*, Windows this and Windows that. Then there's the *Secret of Windows* and the unpublished Windows77 book. By the time you buy them all, you've got a stack that reaches almost to the top of this podium, and you've spent about $700. These are all $60 thick things. These are not easy reading, so you get them all together and you go into the shelves of any software company that writes stuff for the Windows platform, and they have all these books.

Make it simple, just write down something that is so elegant, so simple that anyone can understand it. That's the transition we're in at the moment—a move away from complexity and sort of an arbitrary "Can we hack this to make it work?" into a world of "Can we write it in a way someone has a chance of understanding?" Who's going to be the creator of the new stuff? The kids are going to be the creators of it, so we have a new world we're trying to build of common infrastructure and never again ask, "What does it run on?" It runs on everything, so Microsoft, Apple, IBM, Silicon Graphics, Hewlett Packard, and all the phone companies have agreed to support JAVA running in their software. Jobs did this forever. He would never do standard software. He only saw a way to make money by making it different. Make it different, then they have to buy from you. IBM did this for a long time. The world had changed common ubiquitous software.

This is the new environment—you've got to be linked on the Net. And in the software environment, if you write it once, it should just run on all computers. So, the phrase that emerged for this is, the Network. When you connect anything to the network, it makes the value of all the other things connected go up. You know, the Zen question, "What is the value of one phone ringing?" If I have one phone, I'm not in great shape. If I have a phone and you have a phone, I'm in better shape. When somebody else gets a phone, we both benefit. So each new phone lifts the value of the phone system to us all. You could, from this podium, phone Beijing and talk to somebody right now about what's happening in Tienanmen Square. That's something new. Well, you've got the same thing now with the network. It runs on top of all that physical infrastructure of the phone system, but it runs a standard set of protocols. TCPIP, this is the name for the rules about how the little packets of information float around. It's actually interesting to understand this because we're watching something that we're all going to get hit by.

I can talk into this microphone and it makes its way back to you. A little machine chops my voice up into 40,000 pieces and gives a number to each piece. Now, stack those numbers in a packet. All a packet has is an address at the front end (where it is going to go), and it has an address of where it's coming from. Then that packet is thrown out on the Net. And it goes to the next computer, and it says, "Do you know where this destination is?" The computer says, "I don't know, but I do know who knows," and it sends the packet off to somebody who's got responsibility for that hunk of the Internet who you can tell by the address. The Internet was designed to run battlefields. The idea was you have a phone system and a wire goes from A to B to C to D. Battlefield B has a tendency to blow up so there's no communication anymore. If, instead, you have a Web, a mesh of interconnection, where everybody's connected to everybody else, and B blows up, then my package just goes around, goes to C, trying to get to D: C can route it on to D. It can't be destroyed; it's the whole idea in the sixties of inventing a packet-switch network. These are the rules for it—TCPIP. Joy has a programming language which lets you write things that do things. It lets images, audio, video, and text pop up in some readable way. Those standards across all of these companies mean we have a brand new world. We don't have to waste time understanding the plumbing; we just expect to turn the tap and get the water, which is the goal for all of us.

So, what should you do right now? Here's a couple of things that are in the make. Every time you make a phone call someplace, you get nicked a little bit of money. This is the product of our saying in 1934, "Every American should have a telephone." It's safety. My mother should have a phone in case she's not feeling well, she can call me. So, what do you do if you live out in the swamp, and you've got to get a long, long copper line out to the swamp? That's a lot of money to get that out there. The swamp telephone company said, "We're going to ask everybody to put money into a pool to pay the cost for those long extensions out into the rural areas". Everybody does, it puts money into the pool. It's an access; a universal access of $25 billion a year. On May 8th, the FCC will rule that some of that money pays for access to schools. That's something called the Education Rate, the E Rate, it's in the news. Watch for that, because if that comes through, we're suddenly going to have a new world. Schools, libraries and community centers get free band width, spectrum allocation. The announcement by AT & T is that anybody who wants it gets a little radio on their house that lets the AT & T people connect their long distance stuff directly to the house and not go through BellSouth. If you pay 15 cents for a long distance phone call, some goes to AT&T and the rest goes to BellSouth for this last mile or two connecting to you. They don't want to pay that anymore. So, we're watching enormous struggle over which radio frequencies are available. This is going to affect all the schools, because if we can get links to the schools for free that are high enough band width, then we're done. Then the hard part starts about figuring out how to use all of this information. We're still down to the plumbing question.

There's big questions about taxation, which I don't think I'll get into. Then there's a fight about how do we know when we send somebody something.

Now, when I talk to you, you believe I'm John Gage. Maybe, you take it on face value; but how do you know? Really, you don't know me, so you just take in the setting. It would be embarrassing if I were an imposter, you know? If I send you a piece of e-mail, you even have less grip on it. It just says it comes from me. The tools of encryption let us make a unique identifying key for everybody. I can use that to guarantee that when you get something from me, it's from me. I can also use it to guarantee that when you get a copy of the U.S. Constitution or you get a copy of the new Education Rate rules from the FCC, nobody fiddled with them on the way. They're authentic. So, authentication and perfect identification are made possible by encryption. But we have a big fight, because, as a Cold War leftover, a lot of people think that the encryption stuff lets criminals and evil people have anonymity out on the Net, and the FBI wants to ban encryption. It's a big fight. Watch this fight because (I don't think there's really a way to reconcile this) the law enforcement agencies have unanimously decided that they've had a problem arise that they don't know what to do about. They found this great tool when Alexander Graham Bell invented the telephone. It's called alligator clips, so you can listen to evil people and tape record it, wire-tap. It's an enormously valuable tool for law enforcement. There are evil people out there. Suddenly they're putting their stuff in packets and, oh my God, we can't use alligator clips anymore, because some of the packets go to the left and some go to the right, and you can't get the whole message. And then they encrypt it, and you can't read it. We're in deep trouble. Well, there's some truth on that side. On the other side, the rest of us are saying, "If I'm going to have a conversation with my mother, I'd like to be sure that it can't be easily listened to by any kid on the block." So, we have a struggle, and it's never going to have a unique answer. You'll see a lot of news about what seems to be obscure stuff, but underneath it is something fundamental about how do I know who you are and how can I trust what you send me? And I'll skip over liability.

So, I've just told you about stuff going on today; just a bit of news. If you have a phone line, you can get a box right now that lets you go six megabytes a second. It's built by the phone company people who want to beat the cable people to putting video over copper. There are different names for this technology, but you're suddenly going to be 600,000 megabytes a second. My modem here is getting me 3,000 bytes a second. Multiply that by 1,000, that's three million. So I'm about 100–200 times faster replacing the modem I've got in this computer using exactly the same phone wire. Two hundred times faster links to the Internet are possible today at a cost of about $100 at each end. That's something new that we're going to try to put into all the schools. I've talked about issues for schools, and I've talked about issues for libraries. I'll skip over the law enforcement problems because that is something that is deeper than what we need to talk about right now. I'll show you something about bringing the Internet to the next generation user. To do this, I want to show you where we stand at the moment. (Speaker refers to map on the large computer screen.)

Where we stand right now in the country—this is a map of every school in the country—there are 140,000 schools. This map has never existed before. We made this. There are 140,000 dots here, one for every K–12 school in the country. They're all colored red, because that means nothing's going on, so this is maybe 1993. If you're connected to the Internet, you get a green dot, and if you're connected inside the school, you get a blue dot, all right? Okay, so let's say we're back in 1992–93. Now here's the map that shows you what happened at the end of March last year when we put up 12,000 Web pages, one for every school in California. We said, "You're a parent, you're an engineer." Let's hit all the engineer parents first. "You used to work for the phone company?" Here's a plot. Go out on Saturday, March 9th, and take a stepladder. Go to the schools, get about $300 of wire together or take the stuff in the back room. Go over to the school, and install it. Link the classrooms to a central point. Don't take no for an answer. If the principal's standing in the way, say, "Hi, could you move, please? We're the parents, this is our school, and we're here to install the wire." And, if the principal or the school board says, "You can't do that, you know, because the union will shut us down," just point out that the union endorses this. On March 9, it was announced that all schools in California would be wired. On March 9, 100,000 people went to 4,000 schools and wired those schools with high-speed digital wire, and just did it.

Well, that got a number of other people. I marked in the other schools where a lot of wiring had gone already. If you'll notice, Utah's state policy has fiber and Internet access at every school in Utah. They have a big problem in Utah. They're scattered all over the place. They're truly rural. A kid at a school has no library anywhere near. They felt the only way to provide library access was to get the schools on the Net, and then the kids could go to the Library of Congress and bring materials over. It made a serious difference in being able to cheaply exchange curricula materials.

All right, so that map shows March 9, 1996. The next one shows what happened by the beginning of October, 1996; a little denser, now. We're probably up at about 20–25,000 schools with some wiring. Lots of people got inspired and did guerilla raids at night to go out and wire their schools. Then, in October, in Louisiana, in Connecticut, in all 50 states, we had Net days. As you can see, we added another 25,000 or so schools. In Connecticut, 80 percent of their public schools, private schools, and libraries were wired up in one day. Now that involved a lot of work. In North Carolina, the National Guard airlifted wiring kits out to rural schools. It's different in each state. In North Carolina, it was the Kiwanis, it was the Chambers of Commerce, the National Guard, and what we call the "animal clubs"—the Elks and the Lions—all the animals got out. It was their service project, and it was very easy for the Lions to say: "Okay Saturday, six members of this club are electrical contractors. They have pickups. They have ladders. They're a lot better than the ladders in the school that are almost unanimously OSHA violations in the closet. Go get a decent ladder, and get somebody up and just strap in the wire." They did that.

There remain 80,000 schools or so throughout the country without much. Now the real problem is nobody knows. So, if you ask anyone at any level in a state or county, "Tell me, how many schools in New Orleans are on the Internet?" Nobody knows. We have an answer, but my guess is a lot of schools. How many computers are in the schools in New Orleans? Well, you had a close answer, but those Mac2E's all went up in smoke when the rain came down and managed to wipe out the computer lab at this school or that, or somebody stole seventeen of them. Everything we know is so inaccurate when you get down to school-by-school. People know at a school level; but as an aggregate, public and private, we don't know. So, one of the major components of what we're up to next is to go find out. That's what I want to talk about to you last.

Now we'll go across the Net, and we'll hit this Web page. It'll change a lot in the next few days but this is the map of how we started the whole thing. We put up a page with two people in an office, and then a couple of volunteer Web people. The map of the United States shows how people organized themselves in October. We put up the map of California that shows meter accurate dots for every school in California. We have a list of 12,000 that want certification. I took the list, wrote a simple script that takes the name of the school and makes it a center name. I took the name and made that the header, then the principal's name, the address, the FAX and phone numbers, and made a Web page for each school. How long did it take to write the script? Almost two days, because I'm not as good at this as I used to be. But then, I instantly had 12,000 Web pages, and then the mail came in telling me, "You left us off. We're the prison school. We're the continuation school. We're Rosa Grunion School. We're Korean—there are twenty-six Korean schools in Los Angeles, the eighth largest Korean city in the world. We're the Chinese language schools. We're the Hebrew schools. We're the Baptist schools. We're not on anybody's list." Others would say, "And we don't want to be on anybody's list." So, I added another couple of thousand schools. We can do the same in Louisiana, and we can do the same in every state in the country.

Companies participate, ranging from law firms to local electricians to bigger companies, and they buy wiring kits. Fill a box with wire that costs $350 and bring it into a school that's got a number of volunteers and one CAT5 experienced person (namely an average seventeen year old). You've got a project that will work. You have to get coffee and get everybody there in the morning. We have resources in the community that know how to do this stuff. They're all over the place. Our goal on April 19th of this year is to have somebody go to every school in the country. AT & T said they would provide a free dial-up access to every school in the country. Big PR thing!! We said, "Really?" AT & T said, "YES." We're going to do it, and we're announcing it. It's worth hundreds of millions of dollars." We said, "How many hundreds of millions of dollars?" and they responded, "Well, we're not quite sure but many, many, many, because we're a good-hearted company that wants to be your phone company." We said, "Okay, that's fine; let the PR roll, but we want real numbers." Somebody sat down, added it up and said, "Well, you know what we're going to do, it's going to be five months worth of free Internet access for every school in the country, but we're going to throw it into 800 access for all the rurals." Well, that's good because now you're not paying line charges.

Somebody is going to walk around with a clipboard and say, "You know, actually, it turns out we only have a 20-amp circuit for those entire set of schools out there." To most non-technical people that doesn't matter, but to technical people, it means "plug it in." We've got to find out, as an inventory nationwide, what is really going on. For the first time, we have the ability. No more stratified samples; no more questionnaires to design. California spent $600,000 to design a sample that would go out to 1,000 of the 12,000 schools. It took three months to design the questionnaire, another month to mail, another month to wait, another month to phone them and say, "Why haven't you filled the questionnaire out?", then another month to get them back, another month to keypunch, and a lot of errors. Finally, they ended up nine or ten months later with $600,000 gone and nine months out of date in an area of changing technology. With the Internet, a Web page for every school means we have an instantaneous parallel way of doing a snapshot—a day in the life of the American school.

In any case, I wanted to tell you about this because this is a set of tools that have, in fact, some application beyond NetDay. If we can get a snapshot of the schools, why can't we get a snapshot of the hospitals? How many people died last night in the emergency wards in New Orleans? In my neighborhood, on a summer evening, a grad student that lives in the house down the block was coming home, and two kids told this person to lie down on the ground. They pulled a gun on him, and then they shot him. Then they ran away, and the student went off to the hospital. He was not mortally wounded, but pretty seriously hurt. This doesn't happen in our neighborhood. The next day I had eighty people on my lawn saying, "It's unbelievable that this would happen. What's wrong here?" So, I took a map that showed an area five blocks north, five blocks south, ten blocks this way, ten blocks that way and handed it around to all the people on my lawn. Then I told them to take a pencil and put a dot on the map where there's been a crime in the last year. Forget breaking into cars. Just put a dot for a crime where someone was mugged or a house was broken into and somebody was hurt or something happened. We had about forty dots on that map. No one knew this because everyone works. I know the people on my block and a few people on the next block and another block or two over and then random friends around, but that's it. I had never heard about the incidents three blocks over, because I never see those people. All of us are the same. None of us go to school board meetings, even though we work in the school system, because they take so much time, are so badly run, and have such an impenetrable accounting system. The newspapers can't cover them; nobody's involved in their neighborhood. Well, in this case, we had seen somebody get hurt. We went down to the police station and got all the real data. Three days later we had a meeting in the church, and there were 300 neighbors, city council, and a chief of police. We suddenly realized that we were the second highest crime district out of thirty in our city because one thing happened. We're on a border with Oakland. If you move across the border, the police radios don't talk to each other. People have figured out that if they steal something in Berkeley and cross the line to Oakland, the Oakland police can't make a coordinated pursuit. So, they're off free. We were getting hit all the time. Well, the day after this meeting, porch lights were on, shrubbery was cut, new police patrols were in place, and new street lighting went in. For the first time in ten years, we behaved like a neighborhood. That same feeling came over on NetDay when the whole neighborhood came out and went to the local elementary school. In one day, we put 44 lines into the computer classroom and 16 lines each into each of 16 classrooms in a little elementary school. So, it's something within reach for all of us. It's something that's easy to do, and it's something that alters the perception of kids about how their parents, their teachers, and all of the people in their school are involved in the school. It's a neighborhood-building event.

I urge you to consider going to a school on April 19. At least dial up. Go to NetDay.org (that's the Web page), find your school and sign up. One person on a school page is a magnet for others, particularly if you write something provocative. You might say, "I graduated from this school in 1947, and it was the best elementary school in all of New Orleans. Nobody touched us." There's a free text space. You can write anything you want about your school. It's like a newspaper created for your school. When you write something about how proud you are of your school, where someone will write, "This teacher put her arm around me at Compton Elementary School. I, as chief engineer at Lockheed, am going to return to Compton, and I'm going to wire the school so the kids there have the same chance to do something with their lives that I had." We will see the stories that bind community to school emerge.

CHAPTER 3

Cohesion's Lesions

When the Learning Process Fails to Connect

* * *

Melvin D. Levine, M.D.

> *The gods distinguish what they*
> *give to each:*
> *Not form or judgment or*
> *persuasive speech*
> *Is set before all men in equal*
> *reach.*
>
> —Homer

Academically unsuccessful children commonly lament that too much of their educational experience has been unrewarding and overwhelming. Many of these exasperated students harbor neurodevelopmental dysfunctions that have obstructed the learning processes. In recent years substantial research and direct clinical experience have generated greater insight into the nature of these frustrating breakdowns. The discovery that some children have difficulty establishing critical and stable connections between fragments of information within their minds has been a common thread. At the same time, neuroscientists have identified specific regions of the human brain that are responsible for the binding together of related pieces of information. These cortical and sub-cortical areas bind the parts of an experience, the attributes of objects, and the components of an idea, opinion, or concept. For example, if your cousin buys a new blue Ford pickup truck. The color of the truck, its overall visual appearance, and the manufacturer are processed in different parts of the brain, but they then undergo binding into one unified vehicular representation in memory. When children fail to be effective in their binding, their learning tends to be fragmentary, sorely lacking in cohesion. In this presentation, we will focus on some of the common processes underlying cohesion, processes that should be activated as an integral step in learning. In addition, we will examine cohesion's lesions, the kinds of learning problems that represent breakdowns in cohesive learning.

Six Phenomena

Six specific phenomena are especially generous in their contributions to the richness of the cohesive learning process (figure 1). They include: 1) language sound cohe-

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sions; 2) whole:part relationships and pattern recognition; 3) cognitive activation; 4) concept formation; 5) active working memory; and 6) verbal elaboration. In the pages that follow, we will describe some of the expected operations and mechanisms involved in these phenomena as well as some relevant manifestations of cohesion's lesions. Finally, we will consider the management implications for children who display such lesions and, in fact, for the educational care of all students.

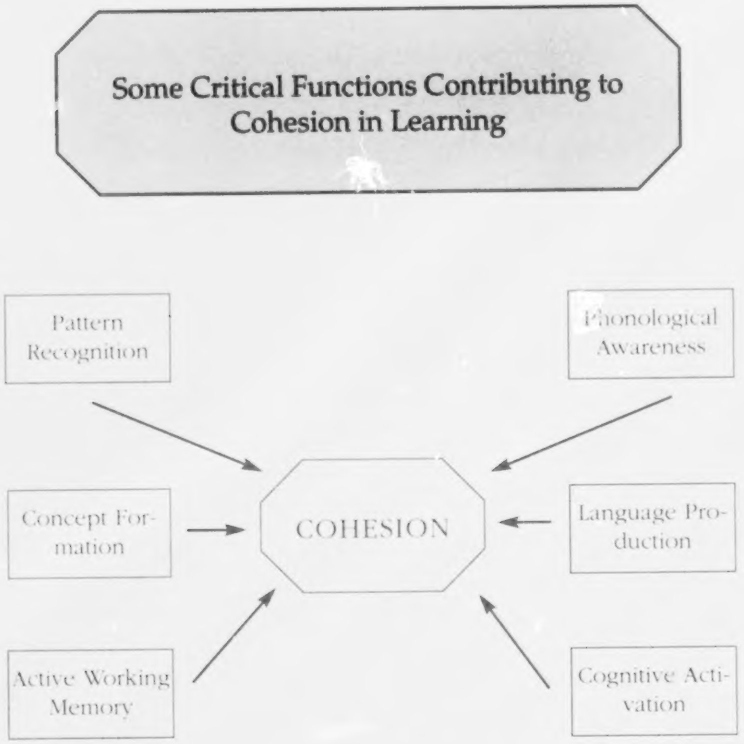
Some Critical Functions Contributing to Cohesion in Learning
Pattern Recognition
Phonological Awareness
Concept Formation
COHESION
Language Production
Active Working Memory
Cognitive Activation

Figure 1. The diagram depicted above reveals six phenomena that foster cohesion in the learning processes of students. The phenomena do not operate in isolation but are highly interdependent in the quest for cohesion.

Language Sound Reception and Manipulation: The Prototype of "Micro-Cohesion"

Phonological awareness has been the subject of considerable interest in recent years. There is abundant evidence that many children with reading difficulties suffer from a lack of sensitivity to the basic sounds of their language. These sounds, phonemes, are often composed of more than one acoustic signal or basic sound; typically two signals combine to form a language sound. Commonly, the two constituent sounds are voiced in such rapid succession that they are said to be "co-articulated" or "shingled."

Tallal and her co-workers have uncovered evidence that a subgroup of children with reading problems have serious difficulty with language sounds in which the transitions between the acoustic signals is especially rapid (30–40 msec.). These individuals exhibit reduced awareness, appreciation, and sensitivity to the language sounds. They may have difficulty discriminating between certain phonemes, and their overall processing of these sounds is likely to be labored and slow. This form of neurodevelopmental dysfunction impacts negatively upon reading, as students have trouble pairing phonemes with graphemes in a stable manner, since the reception of the phonemes is indistinct or unreliable. Consequently, they may be seriously delayed in the initial acquisition and later automatization of word decoding subskills. Their spelling and subsequently their ability to acquire skills in a second language are also apt to be compromised.

For these children, the components of language sounds fail to become bound as cohesive entities from which can be constructed words and conveyances of meaning. Frequently, they lack a fundamental sense that words are comprised of individual blended sounds. This diminished awareness is revealed vividly in their apparent difficulty segmenting words into sounds and then reblending them.

Affected students are susceptible as well to other problems with cohesion during decoding. Their word analytic abilities are further compromised, as they have trouble holding syllables and/or phonemes in active working memory while analyzing long words. Specifically, they are apt to forget the first two syllables while sounding out the final one, thus aborting any attempts at re-blending to pronounce or recognize the word.

Finally, delayed mastery of decoding skills makes it agonizingly difficult for these students to find cohesive meaning when they are confronted with the challenge of reading comprehension. Their underdeveloped and/or poorly automatized word decoding skills are likely to demand inordinate mental effort, thereby absconding with available intellectual resources required to integrate the multiple facts and ideas emanating from the page.

Prototype Two: Whole:Part Relationships and Pattern Recognition—The Experiential Integrator and Reactivator

The discovery of recurrent whole:part relationships ordinarily comprises one of the earliest educational and developmental challenges for children. A core component of preschool learning experience entails the mastery of what goes with what in any array of incoming stimuli. As they color within the lines, young learners develop a sense of boundaries, of which parts of a picture coalesce to form actual entities and how these configurations are distinct from each other. Likewise, they come to perceive letter and number symbols as composed of spatially oriented parts that come together to produce a consistent form. The two lines in a "T," the roof and the bar that are joined to form an "A," and the tiny circles that adhere in an "8" all constitute frequently occurring interactions between bound subunits (parts) that become predictable wholes. Eventually children need to know where one word ends and another begins, i.e., which letters go with which words. In schoolwork whole:part relationships are the precursors of pattern recognition. Throughout the learning process, students are expected be sensitive to recurring patterns. This sensitivity is tested constantly, especially since the patterns that re-emerge bear superficial differences when compared to the original prototype and to each other. In other words, students must often penetrate a potentially misleading "outside layer" of difference to uncover an underlying familiar pattern. A trapezoid may appear inside of a rectangle, a mathematical word problem may be about dogs or about cars but still demand the same multiplication process, or a word may be new to a student but have within it some familiar roots (morphemes). A serious challenge to students is the ever-present demand to ferret out and utilize the hidden patterns, which constitute a critical aspect of cohesion in learning.

Pattern recognition eludes certain individuals. Their early problems with whole:part relationships often become the older students' deficiencies of pattern recognition and utilization. It becomes increasingly hard for them to perceive the patterns that keep re-appearing in subtly different academic disguises. They may find it hard to appreciate the morphological components of words (e.g., roots, suffixes, prefixes), a shortcoming which, in turn, can compromise spelling and the acquisition of new vocabulary. It may be next to impossible for them to recognize previously encountered word patterns within word problems; such terms and phrases are, of course, key to knowing what operation(s) to employ in solving a problem. Their incomplete recognition of patterns can affect adversely many other areas including the appreciation of recurring themes in a story or poem or an entire academic course. It is also likely that this cogntive shortcoming can complicate many a problem-solving challenge; the solutions to problems in all areas are dependent upon the recognition that one has faced this kind of situation in the past. Finally, the lack of cohesion that arises from poor pattern recognition can drain any pleasure to be derived from learning, for it is the exciting discovery of themes and variations that constitutes a major contributor to educational gratification (i.e., having fun learning).

Cognitive Activation: The Mind as a Resonator

New information entering the consciousness of a student is expected to "ring bells." The communicated material should remind the student of related facts he or she already knows. In this way any new informational input activates and, to some extent, reconstructs prior knowledge during the learning process. In most instances, newly arrived data actually open *multiple* memory files, thereby drawing on previous learning as well as any available direct experience. New learning thereby becomes connected to prior knowledge, while, at the same time, there are also likely to be newly forged connections between pre-existing bits of old data, i.e., the recent input may help to bridge some elements of prior knowledge. As a result, incoming information is welcomed to attain membership within various cohesive patterns or networks of knowledge.

One example of cognitive activation is found when students develop a rich semantic network within their minds. As they learn new words, these children embed them within a meshwork of pre-existent vocabulary. The novel word gets processed with respect to the ways in which it is similar and different from other semantic entities in the child's lexicon. Students who process actively thus acquire highly meaningful and tightly interrelated vocabularies.

It is not unusual to encounter students who are passive or inactive processors of incoming information. All too often they neglect to activate sufficient relevant prior knowledge when confronting the new academic inputs. Virtually nothing is "ringing bells" in the mind of such a child. Often affected students feel chronically bored in school. They are apt to overrely on rote memory during learning. Their knowledge tends to lack cohesion, as too many facts accumulate without the development of meaningful interconnections or networks.

Concept Formation: Elemental Thoughts Bound into Compound Thoughts

Concepts foster the cohesion of ideas or features that regularly tend to go together. Conceptualization is a remarkable cognitive convenience economizing on both memory and mental energy at the same time that it allows for the sophisticated comparing and contrasting of ideas and for a wide range of classification systems that facilitate many thought processes. Concepts set default expectations. When we are told that a particular country is a democracy (i.e., it possesses the critical features we associate with the concept of democracy), we expect that elections are conducted in that nation. When an animal fits within the concept of bird, we assume it flies. Concepts consist of critical features most of which are present most (but not all) of the time. Alas, not all birds can fly!

Some students have great difficulty keeping pace with the strident demands for concept formation in school. Over time, concepts become increasingly abstract (i.e., removed from direct sensory experience) and concepts start to have other concepts as some of their critical features. There are many children who have trouble rising above the concrete level of conceptualization. Concepts, such as due process, taxation without representation, and anions (in chemistry) may elude them. Some students have problems primarily affecting the grasping of verbal concepts (such as "irony"), while others may struggle to master non-verbal concepts (such as place value or refraction). In either case, a tenuous grasp on concepts represents an inability to bind critical features so that they cohere and become subsumed beneath an "umbrella" term.

Tenuous conceptualizers are prone to confusion. They are often overwhelmed by a mass of unwieldy detail that is difficult to apply to the demands of sophisticated thinking (such as when trying to compare and contrast two governments or religious sects). Such students may be condemned to chronic overreliance on memory in school.

Active Working Memory: Cohesion's Workspace

Active working memory is, among other things, the mind's primary workbench. It is the "random access memory" of the brain's computer. It is where thoughts are held while other thoughts are brought to bear upon them. It is where the beginning and the middle of a chapter or oral presentation are suspended temporarily while awaiting a conclusion or resolution. Additionally, active working memory holds newly acquired messages while activating from long-term memory the relevant prior knowledge to make sense of them. This academically indispensable memory system has a duration of seconds to hours, offering substantially greater storage capacity than short-term memory but considerably less than long-term stores. A student's ability to perform mental arithmetic, to comply with complex directions, and to retain key information or words during reading are dependent upon the availability of sufficient active working memory capacity.

There are many students who must contend with active working memory capacities that fall short when it comes to schoolwork. Their reading may be impaired, as information is lost before it is fully developed in the text. Such "leaky readers" may understand the individual sentences they are reading but have great trouble summarizing or recalling what they have read. The material simply fails to cohere due to a lack of workspace on which to hold it while the themes or ideas develop. The same kind of difficulty may be encountered while listening to extended oral discourse. Furthermore, many of these students have problems acquiring concepts because they lack the mental space on which "to view simultaneously" the critical features comprising the concept (see above).

Because of their persistent inability to "hold things in mind" while working on them or with them, affected children can become confused, especially when confronted with large amounts of factual material, expository prose, or instructions. Detailed explanations overwhelm and intimidate them. Ideational cohesion has not occurred because there was never enough cognitive workspace on which to piece together the constituent thoughts.

Language Production: The Verbal Elaboration Binding Tool

Expressive language function, the ability to encode one's ideas into verbal statements, is a vital tool for cohesion attainment. By talking through complex ideas and concepts, students impose order upon them. By summarizing or re-telling a story, the narrative makes greater sense to the speaker. Through verbal elaboration, children can discuss a new idea and, in doing so, make liberal use of previously consolidated ideas and/or facts.

Through elaboration children automatically extend what they have learned and make it increasingly personally relevant. Language thus creates personal linkages. Knowledge networks and schemata are formed, and cohesion is enhanced.

Children with expressive language dysfunctions are at a disadvantage in the quest for cohesion. Many such students are consistently non-elaborative. They are unable to deploy language to extend and connect what they are learning in school. Literate speech is hard for them. In listening to them speak, the listener may be struck by the excessive supply of mental effort they appear to require to express sophisticated thoughts. They may reveal a conspicuous lack of cohesive ties between sentences (yet another manifestation of reduced cohesion) and a tendency toward low ideational density, as well as frustrating difficulty presenting facts or ideas in an organized flow. They sometimes overindulge in free associative speech, a pattern in which sentences lead to immediate associations rather than conforming to any overall plan of exposition. The lack of cohesion in their language expression may reflect and complicate a more profound lack of cohesion in academic learning.

Cohesion's Lesions: The Big Picture

The six cohesion lesions we have presented need not be mutually exclusive. In fact, it is rather common for a student to harbor more than one of the above, in which case their affects are additive and the barriers to cohesion are apt to be greater. Any cluster of these lesions may be detected in an individual student. In general, however, there are some common manifestations, which are summarized in table 1.

TABLE 1

Common Manifestations of Learning without Cohesion

- A lack of interest in much of the content of the school curriculum; trouble finding any relevance within the subject matter
- A complaint of often feeling bored in school
- A tendency to focus on details without seeing the big picture
- An overreliance on memory for learning
- A reluctance to apply and extend learning
- Poor grades even in the presence of adequate or nearly adequate academic skills

A student's problems attaining cohesion may be either global or domain specific. Some children reveal a pervasive picture of intellectual apathy, inactivity, and disinterest due to their failure to find cohesion anywhere within the curricula at school. In other cases, a student may only have difficulty with cohesion in one or a few content areas. Thus a high school freshman may have trouble discovering cohesion in a history class without having such problems while reading a novel or listening to the teacher in a geometry class. Such content-specificity of cohesion's lesions is especially common in secondary education—and beyond.

Some Implications for Management

Much can be done to prevent and to mend cohesion's lesions. Often teachers and parents need to help students discover and stabilize the connections within a body of knowledge or a set of skills. Once a particular lesion of cohesion has been identified, it is possible to design a management plan tailored to the child's specific breakdown while utilizing his or her strengths. The following are some general management principles that promote cohesion in the learning process.

- Children who display one of cohesion's lesions should be demystified thoroughly, so that they acquire a lucid understanding of the kinds of connections they need to be working on in school and at home.
- Students need to be taught explicitly about the various forms of cohesion and how they operate. Teachers should refer to pattern recognition, concept formation, network construction, and other such cohesive processes while teaching.
- Maps and diagrams are often good ways to foster cohesive learning. The mapping of concepts (See figure 2 as an example), underlying patterns, and even academic subskills can help children make the needed connections.
- There should be liberal use of analogic teaching and learning. Students should often be asked to form analogies for what they are trying to learn. They should be required to analogize on homework assignments and on tests. Thus, they should confront frequently the question, "What is this like?"
- Whenever new concepts or complex bits of knowledge are introduced, students should be helped to relate these to personal experiences in their own lives. They should seek and describe examples of when such ideas have played a role in their lives.
- Children must be encouraged to develop their verbal elaborative skills. The best way to learn something is to teach it to someone else! Students ought to

begin by elaborating on material they know well and enjoy, then progressing to elaboration upon on recent intellectual acquisitions.

- Cohesion needs to operate at the core of every curriculum. Teachers have to keep linking new inputs to earlier learning. There need to be explicitly identified recurring themes throughout the academic years. In secondary schools, every effort should be made to uncover themes that can cross over disciplinary boundaries, so that, for example, certain concepts in history are echoed in a biology class.
- Students should be discouraged from overutilizing rote memory. Tests and other forms of assessment should stress the elaboration and integration of information and conceptual content rather than its unaltered regurgitation.
- Often students need to learn and to bind complex information in more than one mode. For example, children with reduced phonological awareness are known to need to acquire decoding skills through supplementary modalities and perhaps also with sound inputs that are altered in their rate of administration.
- Every effort should be made to nurture active processing in all students. Students should be made aware when their minds are operating "in low gear." They should be encouraged to self-activate, to say to themselves, "My mind is too passive; I need to get it activated."

It can be seen from the scope of these general recommendations that the strategies employed to help children with cohesion's lesions would actually be of benefit to all students. Those who are in a bind because they fail to bind simply require such interventions (i.e., such superb teaching) in higher, more consistently and sometimes individually administered doses!

The Relatedness of Relevance

The quest for cohesion should be a part of all meaningful learning. The academic experience should not consist of isolated or unbound and therefore irrelevant volumes of information and skill. With continuing sensitivity and ingenuity, our educational system can permit children to savor the elegant architecture of cumulative coherent knowledge and skill.

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CHAPTER 4

Self-Worth, Resilience, and Hope

The Search for Islands of Competence

* * *

ROBERT BROOKS, PH.D.

> *Three things in human life are important. The first is to be kind. The second is to be kind. And the third is to be kind.*
>
> —Henry James

In my workshops I often ask the audience how many have ever taken a course titled "Abnormal Psychology." Many, many hands are raised. When I next ask how many have ever had a course titled "Resilience in Children," at most one or two hands go up; this is true even when the audience is composed primarily of educators and/or mental health professionals, many of whom have earned advanced degrees in teaching and counseling children.

I often wonder how can we raise or work with youngsters as effectively as possible without understanding the variables that contribute to resilience in children. If I were designing a training program for educators, mental health professionals, and other professionals who work with children (and I might add for parents as well), I would require a course titled "Resilience," which would focus on answering the following question: "What factors help children to overcome adversity and beat the heavy odds against them?" I believe that in examining this question, we would learn a great deal about parenting, teaching, and caring for children.

Domains Influencing Resilience

In the past decade there has been increased interest in what helps children, including many with school difficulties, to deal with hardship and difficult situations and become more resilient. Clinicians and researchers have noted that three interrelated domains influence the presence of resilience, namely, the child, the family, and the larger social environment (Hechtman, 1991).

a. The Characteristics of the Child: Resilient children have often been found to have "easy" temperaments from birth, eliciting more positive responses from their caregivers; in addition, they appear to have more advanced problem-solving and decision-making skills, cognitive-integrative abilities, and more adaptive coping strategies.

Most importantly, resilient children maintain a high level of self-esteem, a realistic sense of personal control, and a feeling of hope. Self-esteem may be understood as including the feelings and thoughts that individuals have about their competence and worth, about their abilities to make a difference, to confront rather than retreat from challenges, to learn from both success and failure, and to treat themselves and others with respect (Brooks, 1991, 1994).

As Michael Rutter (1985), a British psychiatrist and expert on resilience has observed:

> . . . a sense of self-esteem and self-efficacy makes successful coping more likely while a sense of helplessness increases the likelihood that one adversity will lead to another. (p. 603)

Given this strong relationship that has been found between self-esteem and resilience, attention must be given to those interventions that foster high self-esteem.

b. The Family Climate: Not surprisingly, resilient children are more likely to come from home environments characterized by warmth, affection, emotional support, and clear-cut and reasonable guidelines, structure, and limits. If parents are not able to provide this kind of positive atmosphere, other family members can serve this function.

c. The Extended Social Environment: Extended family members, friends, teachers, and community groups and agencies can provide support that is lacking at home. Emmy Werner (1993), a renowned researcher in the area of resilience, has written:

> . . . most of all, self-esteem and self-efficacy were promoted through supportive relationships. The resilient youngsters in our study all had at least one person in their lives who accepted them unconditionally, regardless of temperamental idiosyncracies, physical attractiveness, or intelligence. (p. 512)

Schools have especially been highlighted as institutions that can offer children experiences that enhance their self-esteem, thereby reinforcing resilience. Rutter (1985) has stated:

> . . . the long-term educational benefits from positive school experiences probably stem less from what children are specifically taught than from effects on children's attitude to learning, on their self-esteem, and on their task orientation and work strategies. (p. 607)

Psychologist Julius Segal (1988) has written:

> From studies conducted around the world, researchers have distilled a number of factors that enable such children of misfortune to beat the heavy odds against them. One factor turns out to be the presence in their lives of a charismatic adult—a person with whom they identify and from whom they gather strength. And in a surprising number of cases that charismatic adults turns out to be a teacher. (p. 2)

Similarly, a Massachusetts Department of Education (1988) report about at-risk students observed:

> Possibly the most critical element to success within school is a student developing a close and nurturing relationship with at least one caring adult. Students need to feel that there is someone within school whom they know, to whom they can turn, and who will act as an advocate for them. (p. 17)

Obviously, we should never underestimate the impact that one caring adult can have on the life of a child with school problems. "Charismatic adults" find ways of fostering a child's sense of self-esteem and confidence, of replacing despair with hope and disappointment and accusation with encouragement.

Empathy: The Path to Understanding

Empathy serves as a basic skill not only for understanding the world of children with learning difficulties, but for being able to help them to enjoy and succeed at the learning process. Empathy may be understood as the ability to place oneself in the shoes of another person and to see the world through his or her eyes. Being empathic does not imply that you agree with another person, but rather that you attempt to see his or her perspective. While I have found that most people judge themselves to be empathic, it is not as easy to achieve as we might imagine. For instance, it is difficult to be empathic when you are disappointed, annoyed, or frustrated with another person, including your own child or a student in your class.

As an exercise to reinforce empathy, ask yourself what words you hope your children, or students, or colleagues would use to describe you. Then think about the words they would actually use. To consider how we are perceived by others is a significant ingredient in being empathic.

I have discovered that we will sometimes say or do things that are perceived by others in ways that we did not intend. For example, a teacher may have as a goal motivating a student with school problems to do more work. One way the teacher attempts to do so is to tell the student to "try harder." While the teacher may be well-intentioned, that comment is typically experienced as a judgmental, accusatory remark, that actually increases resentment rather than motivation.

Empathy and the Stories of Children with School Difficulties

While one can read about the role that self-esteem plays in the lives of children with school problems, what I found most helpful was to put myself inside the shoes of these children by inviting them to share stories of their lives with me. I have collected many stories written by youngsters with school problems and they provide powerful testimony to the low self-esteem and feelings of hopelessness that burden their lives.

For example, I met Matt when he was a young adolescent. He was diagnosed with both LD and ADHD and was depressed, holding little hope for the future. The following is Matt's description of school and serves as a vivid reminder of the way in which many youngsters with special needs perceive school and why we must create strategies that reinforce self-esteem, motivation, and hope.

> School has been and still is something that I dread profusely. Going to school has been like climbing up a tremendous, rocky mountain with steep cliffs and jagged, slippery rocks. This mountain is very grey and always covered in dark, murky, cold clouds. I step forth to take on this task of climbing this huge mountain. Each step is a battle against strong, howling, icy winds. The winds contain frigid rain that slams against my body, trying to push me down. I keep battling my way up. Sometimes I am knocked down, and sometimes I have to stop to regain my strength. My body is numb. My hands shake like leaves in the wind as I claw myself up the mountainside. Not being able to open my eyes, I blindly claw myself up the steep cliff. I stop because I am in such great pain. I look up and see that my struggle has hardly begun. Sometimes I just do not want to go on any further.

Caitlin, a seven-year-old girl with learning and attentional problems, created a story about a dog called Hyper, who actually represented herself. The central role of self-esteem and a loss of hope were poignantly represented in the second paragraph of Caitlin's story when she wrote:

> Hyper told herself that she would get over this problem someday, but she wondered if she really would. She was worried that when she grew up and her own puppies asked her something, she would not know the answer and they would wonder why their mother was not very smart. Thinking about this made Hyper feel very upset.

A Framework for Understanding the Components of Self-Esteem and Motivation

Given the important role that self-esteem and a sense of hope play in promoting resilience—which is vital in helping children with school difficulties—several frameworks have been articulated to describe not only the ingredients of self-esteem, but a closely related concept, motivation. One such framework, which has special relevance for students with learning problems, has been advanced by Edward Deci, a psychologist at the University of Rochester (Deci, Hodges, Pierson, & Tomassone, 1992). Deci has written that youngsters are more likely to confront and persevere at tasks when the adults in their lives have provided an environment in which these basic needs are met. He has highlighted three such needs that have important implications for our approach when working with and raising children with school problems. They are:

To Belong and Be Connected

Youngsters are more likely to thrive when they are in situations in which they feel they belong and are comfortable, in which they feel liked and appreciated. Certainly, many adolescents gravitate towards membership in gangs to achieve this sense of connectedness and identity. Related to this feeling of belonging, others have spoken of the importance of helping each child to feel welcome, including in the school setting.

It is interesting to look at the answers I received from students of all ages when I asked them what can a teacher do each day to help you feel welcome in school. The two most frequent responses were: (a) being greeted warmly by a teacher who uses your name, and (b) a teacher smiling at you. Small gestures often go a long way towards making you feel comfortable and welcome. Not surprisingly, many children with school difficulties do not feel as at ease and welcome compared with their peers who are successful in school.

To Feel Autonomous

At the heart of most theories of self-esteem and motivation is the concept of a sense of ownership and self-determination. People will be more motivated when they feel their voice is being heard and respected, when they feel they have some say in what is occurring in their lives. If youngsters feel they are always being told what to do and that their lives are constantly being directed by others, they are less likely to be motivated to engage in the tasks that they feel are being imposed upon them. If anything, their main motivation is likely to be to avoid and/or oppose what others are telling them to do.

The need to feel autonomous raises questions of how best to include youngsters in making choices and decisions about what is transpiring in their lives. For example, I often ask educators at my workshops, "If I were to interview your students and ask them what choices they have had in your classroom in the past two weeks, what would they say?" Some teachers have honestly answered that they cannot think of any choice they have provided their students, a situation that must be rectified lest students feel they have little say in their own educational process. Environments must teach children how to set realistic goals, how to solve problems and make decisions in order to reach these goals, and how to set new goals when necessary; in addition, we must provide these youngsters with ongoing opportunities to use and refine these skills.

To Feel Competent

People want to feel competent. They want to feel that there are important areas in their lives in which they have achieved, in which their accomplishments are noteworthy. Unfortunately, many children and adolescents with school difficulties do not feel very competent. For example, a number have told me that school is the place where their deficits rather than their strengths are highlighted. Feeling incompetent and unable to achieve, they often back away from challenges and engage in avoidant behavior.

Youngsters with school difficulties desperately need positive feedback and encouragement from the significant adults in their lives. This does not mean false praise or inflated grades since children are very perceptive in knowing when they are receiving undeserved positive feedback. Positive feedback must be based on true achievement and success, which requires that we provide opportunities for children to succeed in areas that are judged important by themselves and others (Brooks, 1994; Katz, 1997); we must also display their accomplishments for others to see

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(what good is listing a child's strengths on an educational plan, for example, if no one ever sees these strengths?). In addition, an emphasis on providing positive feedback does not preclude giving feedback to correct a child's behavior or performance. However, corrective feedback should be done in a nonevaluative, nonjudgmental way in which the child does not feel humiliated; such corrective feedback should be presented as a problem to be solved. Obviously, if students with school problems trust us and if we have given an ample dose of positive feedback, it is easier for them to accept feedback that focuses on areas that require change and modification.

In essence, any strategy that caregivers use to foster self-esteem and motivation must be strength-based and must promote self-determination in an atmosphere of genuine caring for and appreciation of the child. While we cannot ignore a child's difficulties and weaknesses, we must not lose sight of the many strengths that children possess. We must identify and reinforce each child's "islands of competence"—if we do not, we will have children who continue to feel incompetent.

The Search for "Islands of Competence"

It is so easy to overlook the strengths of children when many of their behaviors frustrate, disappoint, and provoke us. Yet, we must never forget that all children have strengths. As an example, there are youngsters who are much more self-assured playing baseball or basketball than they are taking a math test or talking with their peers. There are other children and adolescents who are secure in the classroom but very self-conscious and anxious playing a sport, and still others who are confident working on the motor of a car or drawing a cartoon but dread writing an essay. An individual's self-esteem may vary from one situation to the next.

If youngsters experience self-doubt and failure in many situations, especially those that they judge to be of value to significant others, their overall sense of competence and confidence is lessened. I use a metaphor to capture this feeling that involves an image in which I see these youngsters swimming or drowning in an ocean of self-perceived inadequacy. In therapy, these children have communicated to me that they doubt that they will ever be successful. To counteract this image of despair, I believe that every person possesses at least one small "island of competence," one area that is or has the potential to be a reservoir of great pride and accomplishment.

This metaphor of "islands of competence" is not intended to be merely a fanciful image, but rather a symbol of hope and respect, a reminder that all children and adolescents have unique strengths and courage. Those of us who are raising and educating children have the responsibility to identify and reinforce these islands of competence so that they will increasingly become more prominent parts of the terrain than the ocean of self-doubt. If we can find and strengthen these islands, we can create a powerful "ripple effect" in which children may be more willing to venture forth and confront situations that have been problematic for them. To find these "islands of competence" is a vital task if we are to assist and encourage students with school difficulties.

It is little wonder that clinicians and researchers have emphasized the importance of reinforcing these areas of strength. Rutter (1985), in commenting about resilient individuals, noted: Experience of success in one arena of life led to enhanced self-esteem and a feeling of self-efficacy, enabling them to cope more successfully with the subsequent life challenges and adaptations (p. 604). Similarly, Werner (1993), studying a high-risk group of children, observed: Most of the resilient children. . . were not unusually talented, but they took great pleasure in hobbies that brought them solace when things fell apart in their homes (p. 511).

Strategies for Fostering Self-Esteem and Resilience: The Search for Islands of Competence

In my work I have focused on interventions to enhance self-esteem so that a child might become resilient. This is especially important for children with school difficulties since their self-esteem and confidence have often been weakened by numerous experiences of frustration and failure.

It is beyond the scope of this article to review in depth the various strategies that can be used to foster self-esteem. I have selected several to describe briefly below. A more detailed description of these, and others, may be found in my book *The Self-Esteem Teacher* or in my videotape and educational guide produced by PBS titled, *Learning Disabilities and Self-Esteem: Look What You've Done! Stories of Hope and Resilience.*

1. Accepting Our Children for Who They Are and Making Appropriate Accommodations: If students with special needs are to achieve success in school, we must give more than lip service to offering accommodations. Unfortunately, I continue to hear from educators that it would not be "fair" to make modifications for one child since other children might be offended. I appreciate that we do not wish to offend students, but I also believe that since research clearly demonstrates that all children are different, then the least fair thing we can do is to treat them all the same. However, I also believe that the issue of fairness must be addressed lest other students begin to resent those students who are receiving accommodations.

Consequently, I advocate that schools set aside the first two or three days of the new school year as an "orientation" period. During this period, teachers would not take out any books but instead would use the time to begin to create a classroom climate in which all students would feel they are welcome and belong.

For instance, to minimize the possibility of children feeling a teacher is being unfair, the teacher could discuss with the class how each one of them is different, how some students read more quickly, others do math problems more easily, some need more time on tests. The teacher can say that given these differences, there will be different expectations of the amount and kind of work done by each student, and then add, "One of the concerns I have is that you may feel that I am not being fair, and those feelings may keep you from learning. Thus, if at any point during the year, you feel this way, please let me know." Feedback I have received suggests that when a teacher initiates a discussion of "fairness" before it emerges as an issue, it remains a nonissue and permits the teacher to accommodate each student's needs without accompanying negative feelings on the parts of any students.

Accommodations need not be of such magnitude to disrupt a teacher's style or classroom routine. The following are examples:

a. Setting a maximum time for homework so that students with learning problems do not burn out. If one child can do two math problems of homework in thirty minutes while another can do five problems in the same amount of time, it is typically best to accept both as completed assignments.

b. Students should be permitted to take untimed tests if timed tests prove too stressful and too difficult to complete.

c. If a student has difficulty copying homework assignments from the board, these assignments should either be listed on a piece of paper or a "buddy" should help make certain that the student has the correct homework listed.

d. Hyperactive children should be assigned tasks that permit them to move around on a regular basis. Such well-planned actions are known to lessen disruptive behaviors.

2. Teaching Responsibility by Encouraging Contributions: If children are to develop a sense of achievement and pride, it is essential to provide them with ample opportunities for assuming responsibilities, especially those that help them to feel they are making a contribution to their home, school, or community environments. I have found that having at-risk children use their "islands of competence" to tutor younger children, or paint murals on the wall, or assist in the school office, or bring messages to the office, or go on Walks for Hunger, helps them to feel that they are making a difference, and serves to reinforce their motivation and self-esteem. The following are other examples:

a. An elementary school child who had a very negative view of school voiced in a therapy session that what he most enjoyed in life was taking care of his pet dog (this activity could be seen as his "island of competence"). He was enlisted as the pet monitor of the school. The position required taking care of various pets in the school, writing a brief manual about pet care that was eventually bound and placed in the school library, and speaking to all of the classes at the school about the care of pets. Until the manual was suggested by his teacher, this boy had disliked writing, but with the encouragement and assistance of his teacher, he wrote the manual because he believed he had a valuable message to offer.

b. A high school student with art talent was asked to help with the set designs to be used for the school play. This activity led to a much more positive attitude towards school and to greater success in the classroom.

3. Teaching Decision-Making and Problem-Solving Skills and Reinforcing Self-Discipline: An essential ingredient of high self-esteem and resilience is the belief that one has control over what is transpiring in one's life—to experience, as Deci has noted, a sense of self-determination or autonomy. To acquire this attitude of ownership, children need opportunities to learn and apply decision-making and problem-solving skills. This can be accomplished in the following ways:

a. Involving children in discussions of how best to solve problems that may emerge in the classroom such as scapegoating or how to decorate the room or what charity drive to support.

b. Having students decide which six of eight problems on a homework sheet they can select to do. Teachers have reported to me that they typically receive more work when they provide this kind of choice since it reinforces a sense of ownership.

c. Strengthening problem-solving and decision-making skills and reinforcing a sense of ownership also has direct bearing on the kinds of discipline we use in the classroom. While one of the main purposes of discipline is to insure a safe and secure classroom, we must not forget that a second major purpose is to promote self-discipline or self-control. I believe that when self-discipline is reinforced so too is self-esteem and resilience. It has been my experience that many students with school problems experience rules as impositions forced upon them by uncaring adults. Thus, it is important to enlist student input in the development of rules and consequences that affect their lives.

Interestingly, while some teachers fear that such involvement on the part of students will lead to a deterioration of discipline in the classroom, the reports I have received are quite different. Teachers have told me that as they discuss with students during the "orientation" period (a) what rules are necessary in the classroom, (b) the best ways to remember rules, and (c) what the consequences should be when someone forgets to adhere to the rules, if anything, the students' rules and consequences are more harsh than those of the teachers. The process of engaging students in creating rules and consequences fosters self-discipline and ownership for one's own behavior.

4. Offering Encouragement and Positive Feedback: Self-esteem and resilience are nurtured when caregivers communicate realistic appreciation to children and help them to feel special. By doing so, we become the "charismatic adults" in their lives. This can be achieved by:

a. Spending "special" time alone with children and asking them about things in which they are interested. This is a powerful way of communicating to students that we care about them as individuals.

b. Writing students a brief note of appreciation, or having an assembly in which students are recognized for various accomplishments (not just academic achievement) are other examples of providing students with feedback that helps them to feel they are appreciated.

5. Helping Children Deal with Mistakes: The fear of making mistakes and looking foolish is one of the greatest obstacles to developing high self-esteem and resilience. Children with school problems often feel defeated and readily retreat from tasks that may lead to failure. We must help children to realize that mistakes are an important ingredient in the process of learning. We can do this in various ways, such as:

a. We must be careful how we respond to children's mistakes and not humiliate them. We must show them the correct way to solve a problem and not offer such comments as: "Are you using your brains?" or "Why don't you listen more closely!" or "Why don't you just try harder!"

b. At the beginning of the school year before teachers have even taught any lessons or given any work, they can initiate a discussion of the role of mistakes in the learning process. This can be done during the "orientation" period I have advocated. In the discussion teachers can share memories of their own anxieties about making mistakes when they were students and involve the class in a discussion about the best ways to insure that no student will be nervous about making a mistake. Placing the issue about the fear of making mistakes out in the open typically serves to lessen its potency, thereby increasing opportunities for learning. This is especially important for students with school problems who feel very vulnerable in the school environment.

Concluding Remark

In general, resilience is linked to a sense of optimism, ownership, and personal control. All of us can serve as the "charismatic adults" in children's lives—believing in them, and providing them with experiences that reinforce their "islands of competence" and feelings of self-worth. This is a wonderful gift we can offer, a gift that will last a lifetime. It is truly one of the most wonderful legacies we can leave the next generation.

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CHAPTER 5

What Does It Take To Learn?

The Effects of Class Size on Learning

* * *

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with assisstance from B.A. Nye and B.D. Fulton[1]

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And to know the place for the first time.

—T. S. Eliot

Introduction

A major education study had its origins in 1984 and continues today. Not only do we have the results from the original study, but also building on that base are continuing studies that we have called *subsidiary* (closely related to the original experiment), and *ancillary* (derived from the original study and the subsidiary studies). In 1990 Donald Orlich said about Tennessee's Project STAR (Student Teacher Achievement Ratio):

> The study lasted for four years and, in my opinion, is the most significant educational research done in the US during the past 25 years (p. 632).

STAR was a tightly controlled, longitudinal, experiment. Professor Mosteller (1995) from Harvard University said about Project STAR:

> This article briefly summarizes the Tennessee class size project, a controlled experiment which is one of the most important investigations ever carried out and illustrates the kind and magnitude of research needed in the field of education to strengthen schools (p. 113).
>
> Because a controlled education experiment (as distinct from a sample survey) of this quality, magnitude, and duration is a rarity, it is important that both educators and policy makers have access to its statistical information and understand its implications. (p. 126).

Professor Orlich proposed *using* research results as a base for school improvement. Professor Mosteller argued forcefully that STAR and studies similar to STAR in terms of design and rigor should be used to inform educational policy decisions. We encourage both activities.

That STAR began at all is a credit to the Tennessee legislature. Prior to making a decision that would influence class sizes statewide, the legislators mandated a study to provide data for their decision, and they *appropriated money* to conduct the experiment for the first four years (1985–86 until 1988–89). There has been modest *support* for some subsidiary studies, particularly the Lasting Benefits Study (LBS) which is following students who began their education in Project STAR to see if the early gains would continue in later schooling after pupils exited the experimental condition at grade four.

The researchers encourage the use of the study's results. We ask, "*What does it take* to get educators' attention?" We present the results of Project STAR and its related studies to persons who might use the results in four parts in this paper:

1. A prologue worthy of media hype.
2. A summary of Project STAR: its genesis, design, method, and findings, and a brief note about some STAR-related studies.
3. A discussion of the large impact that one major study in medicine has had relative to STAR's modest impact.
4. Questions about how STAR results may be used, some thoughts about why results have *not* been used, and some speculations.

Prologue

In recent years dramatic changes have occurred in the lifestyles of Americans. A shopper has explicit information on food labels: fat, salt, calories per serving. Publications emphasize that a fat-free diet is far healthier than one heavier with fat. People seek cholesterol-free foods.

An exercise craze that began several years ago included aerobic activity to improve heart conditioning and the exchange of oxygen. Exercise centers have sprung up where weary executives go after work to peddle stationary bicycles, lift weights, walk on real treadmills, and in other ways reduce stress. Americans have learned that stress kills; some companies have established stress-reduction programs for their employees.

These healthy changes have been reflected in actuarial tables. People who maintain a recommended weight are likely to get preferred insurance rates, as are non-smokers. Smoking has become so critical that "second-hand" smoke is an issue. Public buildings and many restaurants are off limits to smokers.

These changes to an entire generation's lifestyles came primarily from research. Americans generally accept the results of health-related research and seldom speak out against the social changes that have come from it, with the exceptions of those addicted to nicotine who claim that restrictions on smoking infringe on personal rights to smoke, and of some politicians who claim that tobacco is not addictive.

Given that education has a database and a continuing study of great magnitude, probably greater than the database upon which the previously mentioned lifestyle changes have been based, it seems strange that a visitor to American schools sees little change from past practice. The joke about Rip Van Winkle waking up and only recognizing schools is a cruel reality.

Why does the general public accept information and improve its own health, but educators and the general public will not accept information that has equal potential for improving not only the education system but also for improving some conditions that people now deplore: high drop-out rates, low job placement, asocial behavior, increasing incarceration, etc? Is this one more example of the "now generation" acting in its own best interest, and failing to value an investment to improve the future of other peoples? *What does it take to get equivalent action for America's young children?*

Project STAR and Related Studies

Since 1984 large-scale, longitudinal, and experimental research on class-size effects has been conducted in Tennessee. That such long-term research can be sustained in education is unusual. Governors, legislators, State Board of Education representatives, education commissioners, principal investigators (PIs), superintendents, principals and teachers, researchers and State Education Agency (SEA) staff have changed, but the research continues. The accumulating database may make this work education's equivalent of Medicine's Framingham Heart Study.

What began as Project STAR (Student-Teacher Achievement Ratio) evolved in 1989 to the Lasting Benefits Study (LBS) and Project Challenge. STAR and LBS spawned subsidiary and ancillary studies employing the STAR, LBS, and Challenge databases. STAR and LBS built upon a pilot project, the DuPont Study, that helped interest Tennessee policy people in an experimental study of class-size and student achievement.

Project STAR Synopsis

Project STAR began in fall 1985 with almost 6,400 pupils in kindergarten (K) who were randomly assigned in 79 schools in 42 of Tennessee's 138 school districts. Pupils were in classes of 13–17 (Small or S), 22–26 (Regular or R) and Regular with a full-time aide (RA). Teachers were assigned to classes at random. In fall 1986 the pupils moved to grade 1 and remained in the same class-size units. New teachers and aides were randomly assigned. This process was repeated for each grade, K–3, with pupils moving as cohorts each year. After grade 3 the pupils returned to the regular class-size condition of the district. The sample increased to over 7,200 at grade 1 as Tennessee did not require K when STAR began. New pupils who entered in grade 1 were randomly assigned to (S), (R), (RA). As part of the "in-school design" each school that had (S) also had at least one (R) and one (RA) class. This simplified the study in terms of data collection, etc., and controlled for district and building-level variables.

Each spring the pupils were tested in controlled conditions on a norm-referenced test (NRT), the Stanford Achievement Test (SAT). Students also took Tennessee's objective-driven, criterion-referenced test (CRT) called Basic Skills First (BSF). Researchers collected demographic data, logs of teacher and aide time, questionnaire data on classroom practices, student self-concept responses, and other data.

Although the experiment was self-contained with all three conditions in the participating schools, researchers established an external set of 21 comparison schools. Selected from within STAR districts, the comparison schools were as nearly like the STAR school in each comparison-school district as possible. The only contact with these schools was that researchers obtained the test scores of the age-alike cohorts, K–3.

Two main rules guided STAR: 1) students should not be penalized by being in STAR and 2) researchers touched nothing except class size and random assignment. All analyses were conservative. Researchers recognized the influence of teachers and classmates on a pupil's scores and used the class average as the unit of analysis because STAR was a study of *class size*. There were at least 100 classes of each condition (S, R, RA) each year, K–3.

STAR was conducted by a consortium of four Institutions of Higher Education (IHEs). An advisory board and a panel of external consultants guided the researchers. To assure objectivity, the primary analysis was contracted to an external statistics and design consultant; secondary and confirmatory analyses were done by the four STAR PIs. STAR results have been reported elsewhere. *In summary, (S) classes outperformed (R) and (RA) classes statistically and educationally significantly in all locations, for all groups, each year, and cumulatively for all three years.* These gains were on both CRT and NRT measures. (Summary results are in Appendix A.) By the end of grade 3, there were no differences in such things as attendance or discipline, but in (S) there were a) less retention in grade and b) more early identification of youngsters who needed special attention to succeed. Studies of teachers in high- and low-performing (S) and (R) classes indicated that (S) conditions facilitated more time on task, more individual attention, and a greater range of teaching options than in (R) or (RA) classes.

STAR Subsidiary Studies

Researchers are still following STAR pupils and are analyzing test and other results. Two studies of engagement and participation of STAR pupils (grades 4 and 8) show the positive influence of (S) on student participation in school. Students are in grade 10 in 1996–97. In grade 9, the last year for which we have analyzed data, the (S) pupils were still outperforming (R) and (RA) pupils in a statistically significant manner, but differences among the groups were fading after 5 years of no "treatment," from an effect size (ES) of about .6 in grade 3 to .15 in grade 8.

In Project Challenge state policy persons provided funding so that 16 of the state's poorest systems could apply STAR findings and reduce class sizes K–3 to about 1:15. On average, the Challenge systems that started the 1:15 treatment in 1989 ranked well below the state average. By 1995 they ranked near or above the state average.[2] This was a move from about 99th in 1989 to 74th in reading in 1995 and from 85th to 56th in math on tests at grade 3. Challenge is *not* an experiment; *it is a policy application of experimental results*. The way that Challenge was phased in provided the conclusion that the (S) treatment is most useful when it is applied as early as possible in a pupil's school experience. *Small classes beginning in K or grade 1 seem to prevent later school problems, but later application of (S) has limited remedial value.* This and other STAR-related results call into question the expensive, project-driven "remedial" education culture.

STAR-Induced Studies Elsewhere

STAR-induced studies have added to the knowledge base and have confirmed STAR's results by achieving very similar effect sizes (ES) for small-class gains. Success Starts Small (SSS) was a year-long observational study in two schools matched except for class sizes in K–2. One school averaged 1:24; the SSS school averaged 1:14. The ES on achievement measures was about .65, and student indiscipline was far less in the 1:14 classes.

In Burke County, North Carolina, there was a natural experiment of youngsters in grades 1–3 in classes of 1:17 and of 1:25 or so. Researchers worked with staff from a Regional Laboratory (SERVE) to analyze student gains and teacher behaviors in 1:17 and 1:25 classes. The ES differences on achievement measures ranged .6 to .75 favoring 1:17.

Results from these and the STAR-related studies are slowly getting into the research literature *and* generating interest. At last count, leaders in about 17 states have considered, or are seriously considering, class-size ideas as part of state-wide education planning. STAR results are being used in Australia and The Netherlands.

Researchers from TSU are cooperating with researchers at the University of London and with other groups to share and re-analyze the STAR/LBS database. The cooperation will expand the reanalyses by using different procedures to provide added important findings.

Summary of Findings of STAR and Other Studies

What are we learning? Of greatest importance, we are able to show definitively what many parents and teachers have long known. Small is better, *especially* in the early years of schooling. "Better" seems to be much more than simply better test score results. Home-school supporters, private school people and even some education-for-pay people know this, and they *do* small classes. What remedial program uses large classes? Why are tutorials and small-group instruction successful? Here are a few not-surprising findings and/or tentative findings awaiting more detailed analyses:

- Pupils in (S) outperform pupils in (R) and (RA) on all cognitive measures, *and* the early treatment lasts at least into grade 9 after the K–3 start.
- Pupils in (S) have relatively fewer examples of poor discipline.
- The (S) classes seem to ameliorate the known deleterious effects of big schools on achievement and behavior.
- Random-assignment pupils [STAR (R) pupils] outperform non-randomly assigned pupils K–3 [STAR comparison school pupils).
- Teachers have more on-task time in (S) than in (R), and this finding stays constant all year. In (R) the on-task behaviors start about the same as in (S), but they decline over the year. Tired teachers and kids? Burnout?
- There are relatively fewer retentions in grade in (S). This is not only better education practice, but it saves money. Grade retention is closely associated with dropouts. Reducing retention in grade is very efficient and will help pay for smaller classes.

- Students in (S) participate more in school than do students in (R) and (RA). This may influence their staying in school to graduation since participating and dropping out are mutually exclusive!
- The traditional test-score gap between white and non-white pupils does not open as much in (S) as in (R) and (RA). The merits of this will require serious analysis, especially in the total structure of U.S. education.
- Early identification of special needs in (S) seems to reduce later special education placements. This may save *much* money for use in other ways.
- Student scores in (S) are up in *all tested areas*, not just in targeted areas characteristic of special projects (reading and math, usually). Thus (S) is a broad-scale approach to student achievement, not a Band-Aid project.
- "Instructional" aides contribute little to pupil gains. In STAR there was no special training of teachers or aides. Training may help, but without such training, students in K–3 perform better in (S) than in (R) and better in (R) than in (RA), generally. Consider the implications of this, especially since the group that gets least benefit seems to be Black males in (RA) classes, and aides are commonly used as a remedial intervention.
- The (S) treatment is *preventive*, not *remedial*. If a student does not experience 1:15 when first entering the "system," there is little gain unless educators use tutorials or expensive subject-specific "treatments."

Now What?

Table 1 is a summary of some sources and authors that make up the expanding STAR database. Results identified here for the benefits of (S) over the "regular" way are enough to point to an *entirely different* plan for American education. STAR and LBS researchers do *not* advocate just reducing class sizes, K–3, and continuing with education as usual. The K–3 small-class start opens up new vistas for education restructuring—a restructuring built on data and driven by cooperation to see what progress is being made, and why. Wouldn't it be professional, *for once* to use a substantive research base to support what we do or propose to do in education? Where, for example, are *data* to support many "fads" that are "buzzwords" such as "TQM", or "technology integration"?[5] The research base exists for class-size reduction changes. Let's use it as a basis for education improvement until substantive research provides equal or better results for other options.

STAR's Comparison to Major Research in Another Field

Beginning in 1948 the federal government initiated a longitudinal study of heart disease. The study involved no specific "treatment" but did build a database that allowed generalizations to be made over time. *The Framingham Heart Disease Epidemiology Study* had, among other things, the characteristics shown in table 2. The objective of the Framingham Study has been to understand the epidemiology of cardiovascular diseases—to learn the circumstances under which they arise, evolve, and terminate fatally in the population. The Framingham Study was designed to find out how those who develop cardiovascular diseases differ from those who remain free of the diseases over a longer period of time.

TABLE 1

Samples of Studies Derived from and Building upon the STAR Initiative Classed as "Subsidiary" (directly from STAR), "Ancillary" (building on and using STAR database) and "Related" (triggered by STAR results and usually involving STAR researchers).

*Category, Title & Purpose**	*Date(s)*	*Author(s) or Publication*
Subsidiary Studies		
• Lasting Benefits Study to follow STAR pupils	1989–Present	Nye et al., 1991–1996
• Project Challenge (TN)	1989–Present	Nye et al., 1991–1996
• Participation on Grades 4, 8	1990, 1994	Finn, 1989 Voelkl, 1995 Finn, et al., 1989 Finn and Cox, 1992
Ancillary Studies (Use or extend STAR data. Some of these are dissertations.)		
• Retention in Grade	1994	Harvey, 1994
• Achievement Gap	1994	Bingham, 1993
• Value of K in Classes of Varying Sizes—(tests scores)	1985–1989	Nye, Achilles, 1994–1995
• School Size and Class Size Issues	1985–1989	Nye, K., 1995
• Random v. Non-Random Pupil Assignment and Achievement	1985–1989	Zaharias, et al., 1995
• Class Size and Discipline in Grades 3,5,7	1989, 1991, 1993	In Process, Hibbs.
• Outstanding Teacher Analysis (top 10% of STAR teachers)	1985–1989	Bain et al., 1992
Related Studies		
• Success Starts Small: Grade 1 in Chapter 1 (1:14, 1:23) Schools,	1993–1995	Achilles et al., 1994
Burke Co., NC Study	1995	Achilles et al., 1994

*This list is not complete. It provides samples of the types of studies done. Not all authors appear in the references in the exact way listed here. This table appears in several STAR reports in substantially this same form.

The following excerpts are from the six-year follow-up of the Framingham Heart Study (Kannel, Dawber, Kagan, Revotski, & Stokes, 1961). When reading these, substitute such items as school failure or dropout for CHD, and for the underlined sections think about what we know about early intervention in education (emphasis added in all quotes in A–D below).

A. Because coronary heart disease (CHD) is often manifested as sudden unexpected death or "silent" infarction and since the immediate mortality in those surviving to enter a hospital is still distressingly high *in spite of the best therapeutic efforts, it appears that a preventive program is clearly necessary*. (p. 30.)

B. . . . . it seems evident that *efforts at prevention must begin many years before the appearance of clinical* CHD. (p. 30)

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TABLE 2

Summary Description of the Framingham Heart Study*

Since 1948 the federal government's Framingham heart study has followed a representative sample of 5,209 adult residents in Framingham, Massachusetts. These people have been tracked using:

- standardized biennial cardiovascular examination,
- daily surveillance of hospital admissions,
- death information, and
- information from physicians and other sources outside the clinic.

*Information from varied computer-based sources.

To understand the size of the Framingham Study, consider table 3, which shows information on the study population and sample. The study enrolled persons ranging in age from 30 to 59 and represented a stratified random sample of residents of Framingham, Massachusetts.

C. This allows the identification of the coronary-prone individual *many years before the occurrence of clinically recognizable* disease. (p. 30)

D. *Multiple interrelated factors* have been demonstrated to be associated *with increased risk development* of CHD. (p. 30.)

How might educators think about these same general conditions for students? Consider multiple risk factors for at-risk children in the educational sense, such as poverty + race + one parent + . . . ? Finn (1993) has explored multiple risk factors in his study of school engagement. Reading Recovery (e.g., Pinnell, et al., 1988) and

TABLE 3

Composition of Framingham Heart Study Group[1]

	Total	*Men*	*Women*
Random Sample	6507	3074	3433
Respondents	4469	2024	2445
Volunteers	740	312	428
(TOTAL)	(5209)	(2336)	(2873)
Respondents Free of CHD*	4393	1976	2417
Volunteers free of CHD	734		
Total Free of CHD Framingham Study Group	5127	2283	2844

*Coronary Heart Disease. ( ) added to original table.

[1] Kannel, W.B., Dawber, T.R., Kagan, A., Revotskie, N., & Stokes, J., III. (1961, July–December). Factors of risk in the development of coronary heart disease—six-year follow-up experience: The Framingham Study. *Annals of Internal Medicine*, 55 (old series, vol. LIX), 33–50. (p. 35). This table was shown as Table 1 in original source.

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Success For All or SFA (e.g., Slavin, et al., 1995) point out the need to begin the education treatment *early* if we expect results. Heuston (1996) commented on early intervention:

> First, we learned that starting the program in grade 2 was too late to be effective . . . *unless children were on grade level by the end of first grade there was little chance that they would be able to catch up—no matter how intense the remediation effort* (p. 706).

Given this statement and the continuing dismal failure of *remedial* efforts in U. S. education (notably Title I), we should expect an explanation. Why doesn't remediation work? Heuston obliges:

> The crux of the problem is a mathematical one: if we waited until as late as grade 2 to intervene, the at-risk children would have to learn four times faster than their usual rate to catch up, and that increase is probably impossible for the weakest group of learners to accomplish (p. 706).

This answer is no surprise to STAR researchers who found the strongest gains in K–1 for at-risk students. This finding was corroborated in Project Challenge: There was little gain in achievement with the 1:15 treatment in grade 2 until the third year of Challenge. *That was the year when pupils who had 1:15 in K and grade 1 first took the grade 2 tests.*

Framingham's Database Compared to STAR's

Although Framingham's database is commendable, the STAR database is more than *twice* as large. Rather than simply collecting information annually, STAR included controlled treatments. If the subsidiary and ancillary study data are added, the related class-size database is about 25,000 (Challenge, Success Starts Small or SSS, and Burke County, NC). Yet, as noted in the Prologue of this paper, these findings have not become the base for the improved "health" of education: the education doctors continue to resort to voodoo, innuendo, and half truths to try to improve the lot of the very young. Politicians and policy makers don't generally act altruistically for those who don't vote—namely, kids. They respond to political heat. So, *What does it take?*

Table 4 includes data from Project STAR showing pupils (K–3) who had at least one year of involvement in one of three class-type conditions: Small class or (S) of 13–17 pupils, Regular class or (R) of 22–26 pupils, or Regular with Aide class or (RA). The STAR population was 11,601 students—*or more than twice the Framingham Study*. Table 4 shows distribution into race (B, W, O), Sex (M, F) and Free Lunch (FL) or Not Free Lunch (NFL). On the poverty index of Free or Reduced-price Lunch, over half of the pupils are "at risk." Since this is the case, should a *program* for at-risk students be designed to replace the present *project* mentality?

> Given that minorities are more likely to be in poverty than whites (most poor kids are white, although Black and Hispanic kids have a much higher *percentage* of their total number poor) and given our look at the

TABLE 4

Summary of STAR Database with Select Variables by Class Type (Small or S at 13–17, Regular or R at 22–26, and Regular with Aide or RA).

Class	*Sex*	*Race*	*Poverty*							
Type	*M*	*F*	*Total*	*B*	*W*	*O*	*Total*	*FL*	*NFL*	*Total*
S	1674	1488	3162	1040	2058	28	3126	1672	1491	3163
R	2283	2062	4345	1682	2593	31	4306	2486	1870	4356
RA	2167	1907	4074	1451	2545	28	4024	2355	1727	4082
Total	6124	5457	11581	4173	7196	87	11456	6516	5088	11601
%	52.9	47.1	(20)*	36.1	62.8	.8	(145)*	56.1	43.9	(0)*

*Missing Data

Noted demographer Harold Hodgkinson has identified the high percentages of minority pupils who are in poverty, *the* major variable that impedes a pupil's school success. Hodgkinson (1992) said:

> future, we might ask how schools are likely to fare with the clientele we have isolated. The best guess would be—*reasonably well*. . . . America's lowest 35 percent (in terms of school attainment) is truly awful, due to factors that were *present when they first knocked on the kindergarten door*. (Factors such as: poverty, out of wedlock birth, teen births, cocaine-addicted at birth, short of food and housing, born premature, are only a few.) (p. 8. Emphasis added.)

Although most poor kids are white, Black and Hispanic kids have a much higher *percentage* of their total number poor. Added to poverty are the other social factors which impede school success of the at-risk. Yet, educators must work with all youngsters who arrive at the schoolhouse door, regardless of their entering condition. If pupils are "at risk" when they arrive at school, then educators must seek to remedy those problems as well as seeking to advance the academic achievement agenda. (This goal in spite of industry's ideal of zero defect in raw materials!)

In Pennsylvania, Cooley (1993) found that just three variables—poverty, single-parent home, and parent not a high school graduate—account for over "60 percent of the variation in the average student performance" (p. 5). Districts high in these factors also have few resources for education. Their pupils can learn, but educators need added time and financial resources to address "the difficulty of the educational task."

Although small classes may seem more expensive than larger classes, first impressions are deceiving. Data from STAR, however, suggest that both retention in grade and the pesky test-score achievement gap between White and non-White students are ameliorated by starting students in small classes of approximately 1:15 (e.g., Finn and Achilles, 1990; Robinson, 1990). The small-class condition improves the probability that students will participate actively in positive aspects of schooling, and such participation improves the student's chances of not withdrawing from school (Finn, 1989). Finn (1993) addresses multiple risk factors and the potential of the small-class condition to help reduce the impact of these. *The conditions mentioned here all pose avenues to reducing education costs while achieving added gains.*

Table 5 shows the average score on the Stanford Achievement Test (SAT) for student promotion from kindergarten to grade 1 in STAR. A child with a score of 423, 424, 425, and 426 would, on average, be *promoted* in (S) but *retained* in a regular class (R). This is chance, not professionalism, but educators have known the deleterious effects of retention in grade for many years. Yet, they *do* it. (See End Notes). *What does it take* to change?

TABLE 5
Average Scores for Promotion/Retention by Class Type for STAR, Kindergarten to Grade 1 (Scores on SESAT.)

	Class Type		
	S	*R*	*Difference Favoring (S)*
Promote	441	435	6
Retain	422	427	5 *
Range*	19	8	

S = Small Class (1:15); R= Regular Class (1.24)

*A pupil with a score of 423, 424, 425, 426 will be retained in Regular (R) class but the same pupil will be passed to the next grade in a Small (S) class, on average.

Tables 6 and 7 are based on results obtained on Tennessee's CRT built on the curriculum objectives. The Basic Skills First (BSF) test had several items relating to each curriculum objective. To pass an objective, a student had to get correct responses on 3 of 4 (or 4 of 4) questions relating to the objective. Besides computing the percent passing, it was also possible to tabulate the absolute number and percent of all BSF questions that a student answered correctly. Table 6 shows the percent of white and Black students passing the BSF. Notice the large difference (17.4) between Black student performance in (S) and in (R) and the relatively low absolute difference (4.1) in the performance when the Black and white students are in (S).

TABLE 6
Average Percent of Pupils Passing BSF Reading: Grade 1, STAR.

		Class Type		*Difference (S-R) or (S) Average*
Status	*Grade*	*S*	*R*	
Minority	1	65.4%	48.0%	17.4
Non-Minority	1	69.5%	62.3%	7.2
Difference *		4.1%	14.3%	

S = Small Class (1:15); R= Regular Class (1:24).

*The usual practice of "Regular" (R) classes opens the achievement gap between Black and White pupils. In STAR the (R) classes may have been smaller than the U.S. average; they were about 23 pupils.

TABLE 7
Percent by Class Type (S or R), Race (BL/WH), of BSF *Items Correct*, Grade 1 with K and without K (rounded).

BSF Grade 1 Reading (% Correct)				
		With K	*No K*	*DIFF*
White	S	88	85	3
(W)	R	86	80	6
	Diff	2	5	—
	RA	86	82	4
Black	S	87	79	8
(B)	R	77	74	3
	Diff	10	5	—
	RA	79	77	2
Difference by Race by Class Type				
W-B	S*	1	6	
	R	9	6	
	RA	7	5	

S = Small Class (1:15), R= Regular Class (1:24).

*Note that (K) is a *benefit* to pupil scores by grade 1, and that if both B and W pupils are randomly placed in (S) classes the achievement gap is very small when compared to the difference in (R) classes. See also Heuston (1996) for the need for an *early* start.

Black students show a test-score deficit between (S) and (R) that is 2.4 times that of white students in the equivalent class-size condition.

Table 7 reports the percent of reading BSF items answered correctly by class type (S or R) by race at grade 1 for STAR students with K and those with no K. Besides demonstrating the test-score value of K, results show the positive benefits to Black students of starting school in a (S) kindergarten. Black students in (S) in K correctly answered 87% of the items for grade 1 correctly, and Black students in (R) answered only 77% of the items correctly, a 10% benefit favoring the (S) condition. White students in (R) in K answered 86% of the grade-1 items correctly, and those in the (S) condition only were 2% better, at 88%. By placing Black and white students in (R) classes, the usual practice in schools, an *achievement gap opens. That gap does not open at grade 1 if both groups are randomly put into (S) by random assignment.*

Social, Political, and Heuristic Considerations

One acclaimed successful educator of the 1980s and beyond is an advocate of "small is good," according to Mosle (1996) in the *New Republic*.

> Meier also sees "size as crucial: ideally, no class should have more than twenty students and, for the same reasons, no school's staff should have more than twenty staff. No school, consequently, should have more than 400 students." (p. 34).

Research at the Northwest Regional Educational Laboratory by Kathleen Cotton "shows that small schools are superior to large ones on almost every measure." (Houston, 1996, p. 2) Given all of the data pointing in the same direction, it seems like it is time to stop pretending that size does not count in education outcomes and to start reconceptualizing education service delivery from the foundation upward. Consider some interesting speculations.

Reducing the early primary grades' teacher/pupil ratio to a group size that facilitates pupil learning must not need to be "more of the same." While small-group instruction positively affects pupil leaning, the use of small classes is also *facilitative*. It can be the basis for major education reform. In fact, many public education critics see small classes as the keystone in their plans for "reform." Home schooling provides small classes. Although the charter school movement is new and we await substantive studies of its efficacy, we know of no charter schools that use large classes as the preferred instructional milieu. According to the Heritage Foundation's *Business/Education Insider* (1993, Nov.), the focus of a major *privatization* effort is small classes:

> Another company . . . is the Edison Project. . . . Its original goal was to build two hundred for profit schools by 1996. . . . But this ambitious plan . . . has now been scaled back to a joint public-private partnership. . . Its new goal is to run six to ten charter schools by 1995.
>
> The Edison plan envisions a teacher-student ratio of *one to sixteen* . . . (pp. 1–2, emphasis added).

Innovative concepts of time and space are needed to work creatively with class-size reductions. Small groups of *elementary* pupils with a skilled teacher can use neighborhood space—or even over-built business/industrial space—for instruction. They can be connected to a school "center" by technology but be physically located as satellites. Year-around and extended-day scheduling can provide space for 20–30 percent more students in a given time frame. Smaller classes will take more space for the same number of children only if we continue to count space just as "classrooms" in a traditional school building and if we think of schooling as an 8-to-3 activity.

Social reformers have applied the definitive results of studies of crowding and the "behavioral sink" concept by demolishing huge housing projects (e.g. Pruitt-Igoe in St. Louis: Hall, 1976, p. 83) and replacing them with smaller units. Vice President Gore announced "at a national public housing summit" the Clinton administration's promise to demolish "monuments of hopelessness and replace them with homes on a human scale." (Wolf, 1996, p. 3–A.) This plan is to demolish about 100,000 public high-rise units. Policy makers are concerned about "overcrowding" of prisoners incarcerated for crimes against society. Interestingly, policy makers have not used the compelling research that shows the *negative* influences on pupil achievement and behavior of large schools (e.g., Fowler and Walberg, 1991) *or of large classes* (STAR data).

Crowding in 1:23 classes in the SSS study severely limited the teachers' flexibility in designing instructional processes. In the 1:14 classes, each pupil occupied

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about 64 square feet, and in the 1:23 classes, they each had about 23 square feet. While orderly rows of desks *may* be satisfactory in upper grades (they really aren't), in early primary grades, students need space for desks, for learning centers, for rest, and for floor work. Adults use space vertically. They sit or stand, usually with little motion. Children often use space horizontally—and more so if they are smaller and younger. In traditionally organized classrooms, crowding results and may initiate aggressive activities. Overcrowding in K–3, aggressive behaviors, and bullying are connected topics deserving serious research.

Crowded classes and large schools may be incubation areas for gangs and delinquent behavior. Studies of animal behavior, both of the Norway rat (Calhoun, 1962) and of the Stickleback fish (Tinbergen, 1952), have provided experimental evidence that crowding *causes* asocial behaviors. One need only consider gang or mob behavior (deaths by huge crowds at sporting events) or criminal behavior (especially in densely-packed inner cities and housing developments) to raise questions about the crowding phenomenon in schools. An exploratory study using the STAR database has shown that small classes at least help ameliorate the negative effect of large schools on pupil achievement in K–3 in reading and mathematics (Nye, 1995). The SSS results showed a 50 percent reduction in discipline referrals for aggressive behavior in 1:14 vs 1:23 classes (Achilles et al., 1994). Small classes produce many benefits.

In Conclusion

Throughout STAR's duration there was some class-size drift. This factor probably *understated* STAR results in the original study. (See Appendix B). Researchers are revisiting this possibility.

In *Letters to a SERIOUS Education President*, Sarason (1993) states that education has two purposes, *to repair and to prevent* (p. 3). Until now educators have emphasized repair, using a hodgepodge of Band-Aid-like *projects* to remediate, rather than emphasizing the potential of education to *prevent* through an improved *program* base. The quality of data from Project STAR would clearly trigger changes in medicine. Based on results emphasizing prevention of CHD, doctors advocate better lifestyles, improved diets, and increased exercise, and marked improvements in preventing *and* in treating CHD have occurred. In education, what action have educators taken to prevent our version of "educational disease"? Have educators used their data equivalent to the Framingham Study? As a popular advertisement warns, "Pay now, or pay much more later." *What DOES it take?*

Availability of References

Numerous articles, papers, and reports of class-size research are available through Education Resources Information Centers (ERIC) database (using as authors Achilles, Bain, Boyd-Zaharias, Finn, Nye, or some of the other authors shown in table 1 for material that is STAR related). The RPC/TSU also has available a fifty-plus page bibliography of STAR, other class size and related articles and research reports. For a small fee, materials are available from RPC/TSU.

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Notes

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The National Education Longitudinal Study (NELS) database may be a more true comparison with the Framingham Heart Study than STAR since NELS is not involved in "treatment" but only in collecting data and in analyzing status vis-à-vis post hoc issues. STAR and similar databases should provide outstanding education research opportunities and be used as a *base* for *program* (vs project) restructuring of education.

The forthcoming national Early Head Start (EHS) study will have large amounts of data from both experimental (various EHS treatments) and control youth and families. This action has the potential to extend NELS downward to ages 1–4 (the control group) and also to extend the results of early treatment of the various EHS treatments involved will be the experimental base, Perry Preschool, Head Start, STAR, etc.

Research shows that *retention in grade* is not useful, but educators continue with the "retain" or "promote socially" debate. Can *you* imagine anything as inane and feckless as *only* these two options *and* one is known not to work? Some references on retention are included here.

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APPENDIX A

Analysis of Variance for Cognitive Outcomes, STAR, Grades K–3

(Sig. Levels p £ .05 or Greater Are Tabled)

		Reading			*Mathematics*		
Effect/ Grade[a]		*Multi-variate*[b]	*SAT*[c] *Read*	*BSF Read*	*Multi-variate*[b]	*SAT Math*	*BSF Math*
Location (L)			.02				.05
	1	.01	.06		.05		
	2	.001	.001	.001		.001	.001
	3	.001	.001	.001	.001	.001	.001
Race (R)	1	.001	.001	.001	.001	.001	.001
	2	.001	.001	.001	.001	.001	.001
Type (T)	K		.001			.02	
	1	.001	.001	.001	.001	.001	.05
	2	.001	.001	.05	.001	.001	.05
	3	.001	.001	.001	.001	.001	.001
SES	K		.001			.02	
Loc × Race	1	.05		.05			
Loc × Type	K–3	*All N/S.* The class-size effect is found equally in all locations—inner city, suburban, urban, and rural schools (tabled as important).					
R × T	1	.05		.05	.01		
L × R × T	1			.05			.01
L × TR × T	2	.05	.01	.05	.05	.05	.01

NOTE: Only statistically significant (£.05) results are shown. Appendix A provides basic STAR data that appear in various published materials and conference reports by the same authors.

[a] The nonorthogonal design required tests in several orders (Finn and Bock, 1985). Results were obtained as follows: each main effect was tested eliminating both other main effects; loc × race tested eliminating main effects and loc × type; loc × type tested eliminating main effects and loc × race; race × type tested eliminating main effects and other two-way interactions, and loc × race × type tested eliminating all else (Finn and Achilles, 1990).

[b] Obtained from F-approximation from Wilks's Likelihood Ratio. Essentially, no statistically significant differences were obtained on the self-concept and/or motivation (SCAMIN) measures. No training main effect or training-by-type interaction occurred. Trained and untrained teachers did equally well across all class types and the (S) advantage (and absence of Aide effect) is found equally in all four locations for trained and untrained teachers.

[c] (S) advantage and all effects found for total class generally apply equally to white and nonwhite pupils. (S) scored significantly better than (R, RA) on all tests; no R vs. RA tests were significant.

APPENDIX B

Summary of Reanalysis of STAR without "Out-of-Range" Classes

In discussions of the positive results of the (S) condition, the question often is raised, "Is that difference enough?" Another issue is that some other "targeted" interventions achieve larger effect sizes (ES) than STAR. There are several responses.

One response is that since class size (1:15) provides an ES of about .35 to .75 and a project that starts with 1:15 and adds tutoring gets an ES of .90, then the actual ES of the new program is only .55–.15 (part of the .90 can be attributed to the 1:15 condition). Such a mathematical adjustment, although greatly simplified, helps point out the need to separate the ES provided by small classes from the total ES of more expensive and less pervasive programs.

Researchers need to re-analyze the STAR data after removing those (S) classes that "grew" and the (R) and (RA) classes that "shrunk" out of because of pupil mobility during the four years of STAR. STAR results were re-computed using only class sizes of 13–15 as (S) and 23–27 as (R) (Zaharias, Achilles, Nye, Bain, and Fulton, 1995). The STAR ES ranged from .33 to .63 for reading and math for K–3. This analysis gets at the issue of small vs. large classes. A careful review of this re-analysis is required before the results are final. Researchers need to be sure that removal of "out-of-range" classes does not introduce any systematic bias (e.g., removing only urban schools, etc.). Nevertheless, the initial re-analysis produces ES's that are highly important as follows for grades K, 1, 2, 3 respectively: reading (.52, .45, .63, .63) and math (.33, .46, .53, .55).

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Distribution of STAR Classes by Grade (K–3) by Designation S (Small), R (Regular), and RA (Regular and Aide).

		K (n classes)			*1 (n classes)*			*2 (n classes)*			*3 (n classes)*		
		S	*R*	*RA*	*S*	*R*	*RA*	*S*	*R*	*RA*	*S*	*R*	*RA*
	11										2		
	12	8			2			3			2		
	13	19			14			16			15		
A	14	22			18			27			17		
	15	23		1	31			32			31		
	16	31	4		16	1		29	1		31		1
	17	24	4	1	33	1		19			27		
	18		1	2	6	2		6			10	1	
B	19		7	6	3	4	3	1	3	3	5		4
	20		6	6	1	10	6		2	1		9	13
	21		14	12		18	18		7	11		11	12
	22		20	20		27	15		23	21		13	16
	23		16	21		19	20		20	21		10	14
	24		19	14		16	11		22	25		15	14
	25		6	6		7	9		9	15		116	15
C	26		4	3		5	9		6	7		5	12
	27		1	6		2	4		4	1		5	8
	28			1		1	2		1	0		2	6
	29					1	2		2	2		2	2
	30					1	1						
TOT		127	99	99	124	115	100	133	100	107	140	90	107
		325			339			340			337		

A = range for (S); B = "out of range"; C = range for both (R) and (RA) classes.

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Notes

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[2] With 138 districts in the state, the *average* rank would be 69th. A district ranked 70th–138th would be below average. For summary reporting purposes, we discuss the *average* rank of the 16 Challenge districts and the improvement of that rank over time.

CHAPTER 6

A Teaching and Learning Quilt

❦ ❦ ❦

PRISCILLA L. VAIL, M.A.T.

The kind of nets we know how to weave determine the kinds of nets we cast. These nets, in turn, determine the kinds of fish we catch.

—Eliot Eisner

My desk top is made of a beautiful quilt given to me as a bride by my mother-in-law, and covered with glass for protection. The surface is smooth, and the intricate yet simple patterns of fabric, shapes, and stitchery are, by turns, entertaining and soothing. Now, in an additional gift, they provide the metaphor for this conference paper.

My topic was *Theory's Fine but What Do I Do on Monday?* with five sub-headings:

memory
"dyspedagogia"
writing
measures of mastery
organization in time and space

Like bits of cloth, these are separate, yet, in the hands of skillful teachers, they combine in a quilt of learning which warms the heart, delights the mind and eye, and lasts for a long time.

In deciding how to write as clearly as possible about these seemingly unconnected elements, I have reached back through the research I have read, things wise people have told me, and into my own experience for just the right colors, shapes, weaves, and prints. Thus, those of you who know me well, who have taught with me, and have heard me speak, or who have read what I have written, will doubtless recognize ideas, phrases, or anecdotes. It will be like looking at a quilt and saying, "Oh, I remember that dress!" And just as the bit of dress takes on its own new life in becoming part of a quilt, I find new angles in familiar thoughts as I assemble them here for their first joint appearance. To stitch and join is the work of connections. Connections, in turn, are the fabric of teaching and learning. Here are mine.

Memory

This classroom was a soul-shriveler. The teacher welcomed me, saying, "These fourth graders have done so well that we're going to do Tangram puzzles instead of having our regular math class." He stopped. "Everyone, that is, except the people at the table in the corner. They won't be joining in the fun because they still haven't memorized the product of seven times eight. But they'll know it by the end of the period, because that's the only thing they'll be doing."

"Okay. Let's go. Now . . . wait a minute . . . where is it . . . my Tangram book . . ."

From the sinners' table came Fred's voice, "It's the blue one in the bookcase, Mr. Brimstone."

"Which blue book? There are lots of blue books in that bookcase."

"The blue book that's the same color as my grandmother's front door in Nantucket."

"When were you in Nantucket?"

"When I was four."

Fred remembered the color of the door, the pink of the geraniums, the shade from the tree falling across the hammock and the grass, the bumpy ride over the cobblestones on the main street, and his favorite flavor of ice cream from the Sweet Shop.

"That's just the trouble with you, Fred," Mr. Brimstone barked. "You only remember what you feel like remembering!"

WRONG! Humans have many different kinds of memory. We may feel brilliant as we recognize a long-lost cousin at forty paces, or ride a bicycle after a lapse of decades. Or we may feel stupid for being unable to retrieve the name of a favorite restaurant, or the product of seven times eight. I've read a lot about memory but I keep forgetting what it says.

Now I have a mnemonic device. The Dana Alliance for Brain Initiatives sent a reprint of "Memory: Why You're Losing It and How to Save It" (*Fortune* magazine, April 17, 1995) which uses WIRES as an acronym for five different types of memory: Working, Implicit, Remote, Episodic, Semantic. I would add two more that underlie and overarch the others: Emotional Memory, and Memory of the Future.

This, of course, is only one schema, one way to get our arms around a vast and complex subject. The explosion of neurological research and knowledge provides a variety of tools for organizing our thinking. In an odd way, I think memory systems are like a deck of cards.

Just as we know there are fifty-two cards in a deck, we know there are specific components of the human brain. Just as there are suits and face cards and numbers in a deck of cards, there are systems, and feedback loops, and specific functions in specific areas of that three-pound miracle we carry around inside the relatively small space we call the skull.

Using cards to tell fortunes or to play games, we can organize the whole deck (or the hand we have been dealt) by color, by suit, by pairs, by fours, by runs, by royal flush, by face cards, by trump, or by allowing round-the-corner aces, wild cards, and jokers. We may even use several ways simultaneously. But following patterns as we shuffle, deal, discard, and play moves us in purposeful directions instead of toward the random mess of Fifty-Two Pick Up.

Similarly, we can use WIRES as a sorting device for distinguishing among different types of memory. In doing so, of course, we must recognize other grids which might distinguish long-term and short-term memory, or which delineate verbal mem-

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ory, emotional memory, rote memory, and motor memory, or which chart the loops of perception, memory, and cognition. Referring to these loops at a continuing education lecture for Harvard Medical School, Margaret G. O'Connor, chief of the neuropsychiatry section at Beth Israel Hospital and instructor in neurology at Harvard Medical School, said, "These are not in actuality compartmentalized, but I am speaking about them compartmentally for the sake of parsimony."

Since WIRES is easy to remember, let's use it, exploring how these different capacities serve adults as well as students. How do they work in life and school? How do others use them to gauge the breadth and depth of our knowledge, the steel of our intelligence, or our innate worth? Using a blend of previous knowledge, clinical experience, common sense, and *Fortune's* wisdom, let's take them one by one.

Working Memory

This function, located in the pre-frontal cortex, is the brain's controller. It allows us to hold several ideas in mind simultaneously as we collect supplies of information, ideas, and associations, joining them with incoming information and stimuli. We draw on Working Memory to enrich the "convergence zones" to which we bring ideas from many sources, internal and external, as we deliberate issues or try to solve problems.

Working Memory is usually robust in student years and generally starts to fade or slow down between the ages of 40 and 50. Perhaps it grows slower with age because the older person has more experience and knowledge to dredge up or to harness, thus the collecting process is more complex.

Mel Levine, director of the Center for the Study of Development and Learning at the University of North Carolina points out that for some bright kids with a small Working Memory capacity, school is like trying to assemble a jigsaw puzzle on too small a table; the pieces fall to the floor, and there isn't space to assemble small sections to put into the bigger puzzle later on. Educators need to help them out by putting an extra leaf in the table. Without sacrificing standards we can allow extra time on tests and exams, reduce rote memory demands, and teach in such ways that information is embedded in rich contextual webs, or convergence zones.

Many students become confused or intimidated when asked to draw several memory strands together in academic tasks. For example, those with weak word retrieval and/or labored handwriting panic when they are required to remember and reason simultaneously, particularly under pressure of time. When they are also asked to write down what they are remembering and reasoning, as in tests and exams, they fall apart. Anxiety is the enemy of memory.

When Working Memory, a uniquely human capacity, is well supplied with information and given enough time and space, thoughts converge and originality soars. WIRES hum.

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Implicit Memory

Located in the cerebellum, this function helps us ride bikes, drive cars, swim, or turn cartwheels. We develop automatic recall series of motions called "preserved skill" or "crystallized knowledge." As opposed to what's called "fluid knowledge," these remain firm.

For example, I am a summertime bike rider, while my husband gets his pleasures and health kick from tennis and golf, spurning my offers of two-wheeler camaraderie. Last winter we visited some friends in flat Florida, a biking paradise. Our host and hostess rolled out their own bikes . . . and ones they had rented for us. "We'll take a picnic!" they proclaimed. An interval of five or six decades became as nothing: Donald jumped on, pedaled majestically, balanced precariously, and wobbled down the walkway. After a hundred yards, Implicit Memory smoothed out and he was poetry in motion.

Academic teachers might note that Thomas Sandson, professor of neurology at the Harvard Medical School, says ski school instructors teach directly to Implicit Memory, sometimes thought of as "procedural learning" as opposed to "declarative learning." Beginners, taught this way, take to the boards quickly and enthusiastically. Administrators and classroom teachers might try some of the same.

Implicit Memory, which, as we can infer, is closely tied to the motor system, helps us remember how to write our names without thinking about individual letters, sip from a water fountain without drenching ourselves, automatically spell words we are writing (if we are fortunate), and play show tunes on the piano in spite of two glasses of Chablis. Too much wine turns the motor memories of our melodies to inaccuracies which betray overindulgence as surely as a Breathalyzer.

When students with weaknesses in the handwriting aspects of Implicit Memory (many of whom are very smart) try to write, their attentional energies divide between the mechanics of penmanship and the excitement of ideas. This split fractures focus and lowers quality of output.

Kids with arrhythmic or uncomfortable handwriting may survive the first three grades of school without trauma. But, as we will see in section 3, when their ideas and conceptual energies begin to flow with greater rapidity, higher levels of complexity, and increased abstraction, a lag-behind hand jeopardizes their energy for writing and their willingness to make intellectual commitments on paper.

Sometimes we turn to Implicit Memory as a substitute or backup. One evening, last summer, I said to a friend, "Let's call Ginny. What's her number?" She, a world renowned photographer, with an obviously exquisite sense for space and design said, "It's . . . um . . . wait . . . 37697 . . . no . . . 39677 . . . no . . . oh shoot! . . . here . . . hand me the cordless and I'll punch it in." Her fingers flew over the number pad. Presto! There was Ginny.

Doubtless, intuitive reliance on Implicit Memory is what leads drama coaches to rehearse plays until stage directions and gestures of walk-throughs become ingrained. Merely requiring performers to learn their lines is not enough.

Additionally, and compassionately, we need to remember that although many bright students are athletically skillful, some highly intelligent children with visual-spatial or motor confusion have trouble learning to swim, bat, catch, or kick. They don't *forget*; they never established the implicit memory. Sometimes, WIRES don't connect.

Remote Memory

Lying in and around the cerebral cortex, remote memory stores factual information. Adults wonder (with fear and embarrassment), "Where did I park my car in the parking lot?" Students must be able to answer such questions as, "When and what was the Battle of Hastings?"

Rapid, accurate retrieval from Remote Memory underlies high performance on many kinds of tests and exams, and guarantees success in such parlor games and IQ exercises as Trivial Pursuit and Jeopardy. Unfortunately, however, some smart kids who have good ideas and rich associative webs are clumsy when they try to access their own information. Teachers may write, "Charlie makes wonderful contributions to classroom discussions. If only his test performance could match his daily work, he would reach his potential."

Many reflective teachers worry that a disproportionate amount of testing (test and exam questions as well as the zingers we fling at students to catch them out in the non-doing of homework) only taps Remote Memory. Kids who have trouble drawing from this source, but who manipulate Working Memory skillfully, and who have deep and wide access to experiential and emotional memory, commonly called Episodic Memory, are often unfairly accused by their parents and teachers of "only learning what they feel like learning." They are suspect. Think back to Fred, seven times eight, and the blue front door.

In spite of intelligence, good student attitude, and great teaching, sometimes WIRES short-circuit.

Episodic Memory

Created in the hippocampus, (which is part of the limbic system, the emotional brain), this function helps us remember why the birthday party was fun, who told the dirty joke, where people sat at the meeting, or who did what when the broiler caught fire. Episodic Memory gives us what are called flashbulb moments: remembering exactly where you were when you heard about JFK's assassination. It also covers our more mundane autobiographical moments in patterns of light and shadow.

Through Episodic Memory we remember very recent events, such as the first part of the sentence the speaker is now finishing. It is easy to see how Episodic Memory and Working Memory collaborate, and also the obvious connections between Episodic and Remote Memory. But then, as Margaret O'Connor pointed out, our compartmentalized look at memory as a system is simply a device for understanding individual systems which are constantly knit together.

As we know from the studies of human consciousness, or from Antonio Damasio's recent book, *Descarte's Error: Emotion, Reason and the Human Brain*, each person's Episodic Memory of a shared event differs. There is no "official script," no homunculus runs through our minds with a clipboard, recording the performance. Scrolling a scene though Episodic Memory, each of us sees it differently, and, in addition, unconsciously, or unintentionally, even our personal memories may shift through time and retelling.

How do we in fact remember? Starting with a sense of self in the present moment, absorbing background influences and immediate stimuli, registering emotional connotations, and fooling ourselves that our conscious intention is in charge, we combine our sense of person, time, and place. However, as Damasio points out, present continually becomes past, and by the time we take stock of it we are in another present, consumed with planning the future which we do on stepping stones of the past. We are hopelessly late for consciousness.

Our ability to retrieve shards or chunks from the past "depends on the brain's creation of a description, and on the imagetic display of that description," according to Damasio. We don't store complete, fully formed memories in honeycomb storage containers on vast mental warehouse shelves. Rather we draw together bits and pieces of various aspects of what we're trying to recreate.

Since Episodic Memory seems to flourish effortlessly, teachers such as Mr. Brimstone may mistrust its worth, putting higher value on "solid" information "dug out" from Remote Memory.

With great implications for us as educators, keepers of the keys to success or the iron gate of failure, Larry Cahill, of the University of California, Irvine, points out two kinds of Episodic Memory: one for ordinary information and one for emotionally charged information. And, as we will see very soon in the sections on Emotional Memory and Memory of the Future, Episodic Memory, laced with emotional connotation, reaches forward predictively as well as backward into one's one history.

Miraculously, WIRES carry stories.

Semantic Memory

Stored in the angular gyrus, this function gives us access to word meanings and symbolic associations. As *Fortune* points out, even patients in the late stages of Alzheimer's remember what cookie, scared, and hug mean.

Semantic Memory depends on: acquisition of a word; consolidation of that word into one's vocabulary; the ability to recognize what the word means when we meet it in reading or conversation; and the ability to retrieve the wanted word so as to use it. Most adults stumble over retrieval from time to time. Have you ever forgotten someone's name just when you want to introduce them? William James points out that when we are grasping for a particular vanished word, its absence creates "an intensely active gap." Nothing else quite satisfies. When we manage to catch the elusive word (usually a noun or a proper noun, seldom a verb), the feeling is as satisfying as a really good sneeze. Forgetting names, whose incidence increases with old age and Chablis, is often considered just a foible. For adults it delivers the making of a funny story. Not so with students.

Kids who have trouble with retrieval may not be able to deliver quick answers on demand, for example when called on in class. They often have trouble getting to the point because the words they need slipslide away. They try to keep the floor by using time buyers and fillers such as "and um." Frequently they suffer and stumble when trying to get their thoughts on paper in a legible, orderly fashion.

The child who answers a teacher's questions with "Oh…wait…I think it's like that, like, you know, um, thing we were talking about last week in…" courts the same kind of soul shriveling we saw with Fred in the math and Tangrams class. Yet dysnomia, or word retrieval difficulty, springs from a wiring glitch in a specific part of the brain. It is not from bad attitude.

Dysnomic students need to learn to comb through their readings, using an index card to catch and catalogue important names and dates, which is a splendid study skill in and of itself. They should then be permitted to bring those cards with them into class, or to use in tests and exams.

Dyslexic students, of average or above average intelligence, often have trouble acquiring the arbitrary symbols called letters and numerals. They need multisensory teaching in order to soak the symbols in such evocative connotation that they can consolidate them into their automatic knowledge, recognize them, and retrieve them for use in reading, writing, spelling, pencil-paper arithmetic, and mathematics.

WIRES stabilize.

I want to add two other aspects of memory which overarch and underlie WIRES. Emotional Memory emerges through the limbic system, which connects each experience with either neutral, positive, or negative feelings. Students who have met failure, or worst of all ridicule, in school are emotionally conditioned to dread or avoid academic settings; those who have learned strategies for success will continue their reach for knowledge. Through experience each of us ingrains the emotional habits which govern and predict our behavior, often before we are consciously aware of anything going on. The emotional climate of a classroom, entirely in the hands of the teacher, is a sacred trust. Extended WIRES.

Memory of the Future is not an oxymoron. In anticipation, we construct scenarios on a kind of inner blackboard, and then match our actual experience to whatever memory of the future we have laid down. People with different scenarios for joint experiences get in trouble. Last week my husband said, "No plans for Saturday night? Let's keep it that way. I'll get a good bottle of wine." At the end of the day, I took a shower, put on my new silk pants, a pretty shirt and started dinner. My husband appeared in bare feet and shorts saying, "How about eating in front of the TV and watching the golf replay?" I said, "Not on your life."

After a slightly strained dinner at the table, he fell asleep in the living room. As I considered decapitation, slow poison, or fatal flailing with a pillow, the light dawned. In contrast to his client-and-legal-brief weekday life, his Memory of the Future built on unstructured informality, with closed eyelids on demand. After a week with children in school, my scenario included candlelight and urbane conversation. There was no villain; we just hadn't compared notes.

Discrepant Memories of the Future create misunderstandings among friends, colleagues, spouses, parents and children, administrators and faculty. We can increase our chances for cooperation and peace simply by comparing and converging. Foretelling WIRES.

What are we supposed to do with all this?

First, we need to be aware of the variety of human memory systems. Second, we need to understand that aspects of education are moving toward cooperative learning and joint problem solving. But in many schools, enlightened teaching does not include equally enlightened testing. Much assessment taps only Remote Memory: the three R's of rapid, rote, retrieval. Ramrod reliance on Remote reduces resilience and reinforces rigidity. Third, people combine and recombine their various memory skills constantly, emphasizing those which suit the task at hand. We need to understand our students' memory systems, and tailor our demands according to the kind of learning we are trying to foster. Which is our goal: academic rigor or academic vigor?

If we free the WIRES, they will hum with power, make connections, carry current, and bring illumination.

"Dyspedagogia" and Freddy the failure, Ph.D.

The numbers that help me are 20-60-20. Here's how I use them. Some children, perhaps 20% of the population, would learn the 3Rs no matter what. If we locked them in a linen closet for the first seven years of their lives they would emerge literate, having cracked the code by studying the labels on the bath towels.

At the other end, research tells us that, conservatively, 20% of the population will need multi-sensory methods and materials, extra teaching, and overlearning to master skills their peers acquire easily.

That leaves 60% of the population in the middle. The profile is a perfect bell curve. Of the 60% in the middle roughly 75% will not, or cannot, intuit the structure of written language simply by being exposed to the texture of spoken language. Language is made of both structure and texture and kids deserve teaching and learning in both. Yet many kids are not taught phonics. Paying the price for adult ideological warfare, these kids suffer from the galloping scourge of "dyspedagogia": they are ill taught or undertaught. They are not learning disabled so much as they are curriculum disabled. What happens to them?

In March of first grade Freddy was in the bottom group of reading and math, and the teacher said his written work was unacceptable. His standardized test scores were in the seventh percentile (meaning that of 100 test takers his age and grade level, 93 did better than he.) Because he was an intelligent child, as well as a failure, he hated school.

Although he had been quick to understand the meaning of numbers as a little child, and continued to make such comparisons as *more than* and *less than* in daily living, Freddy's paper and pencil arithmetic were untidy and inaccurate.

His mother decided to try to teach him at home. His father suggested hiring a tutor. His teacher said, "Maybe he'll come around when he's ready," and decided to try a new set of look say basal readers in class. "This will speed up his reading, decoding is so slow. If he can just recognize words by sight, he'll read faster."

That was when Freddy, age 6 years 3 months, started wetting his bed. And that was also when his father brought home the bomb. He was being transferred by his company; the family would have to move. Freddy would have to change schools.

His parents realized that Freddy's official transcript of report card comments, grades, and those disastrously low standardized test scores would precede him, dictating his placement in whatever school he attended next. They yearned for some tangible evidence of the intelligence they sensed in their child, and found it in the bottom of his backpack-booksack.

He had been given this assignment: Imagine yourself as a creature new to this earth. Invent a name and tell what you are like. On a paper, bloodied by red ink spelling and handwriting corrections, they deciphered his response, translated here into corrected spelling.

"I am a Slost,

I am made of stone so no one can hurt me,

but inside I have treasure."

Way down at the lower left hand corner, in tentative writing as if to buy safety from the certifiying power of the written word, he added (uncorrected spelling) "I oso hav a lidul dor."

Freddy's parents took his "Slost" story with them when they went to investigate schools in their new community. They were chagrined and angry at feeling ashamed of their son, and yet what school would look enthusiastically on a candidate with his record? Would any school or teacher be able to find that "lidul dor" to Freddy's treasure?

Initially by themselves, and later with Freddy in tow, his parents visited three schools, one public, one parochial, and one independent.

One school said, "We have a pretty good budget for L.D. kids and will try to meet his needs."

Another said, "Because of the makeup of our community, we have a wide range of abilities, he'll probably be in one of our low groups, but he won't be alone."

The other school suggested giving Freddy another year in first grade. They said that many children with late fall birthdays, particularly boys, are developmentally unready for formal academic work even though they meet chronological deadlines. This is no reflection of low intelligence; in fact many keenly intelligent children fall in this category.

Because they are obviously bright, and often interested in stories, numbers, other people, and things schools teach, parents and educators sometimes mistakenly assume that the alert child is also the academically ready child.

The wholly ready child starts his first grade able to:

sit still and concentrate
work with symbols
separate reality from fantasy
postpone gratification

An intelligent, unready child with minor vulnerability in the small motor system, visual memory, auditory synthesis or language development who starts school prematurely may suffer blows to self-concept which predispose to pessimism or even despair. In the words of Erik H. Erikson, the school age child internalizes this judgment "I am what I can make work." The student who cannot do with effort what others around him do with ease thinks of himself 'I am what I botch."

Time alone buys no immunity to any of the dyslexias, but putting a child into situations for which he is unready sets the state for *dis-ability*. In addition, if the marginally (or totally) unready child has a teacher whose methods and materials mismatch his learning style, he can appear *dis-abled*. *Dis-pedagogia* and *dis-peratus* combine to create an illusion of *dyslexia*. The happy outcome of Freddy's case showed it to be Ph.D.: Phony Dyslexia.

On the recommendation of Freddy's new school, he took another year of first grade, beginning at 6 years 9 months. Because of his obvious vulnerability to Specific Language Disability, he was sectioned into a classroom whose language arts was taught by multi-sensory techniques.

He started his new school hesitantly. He didn't make eye contact, and responded to friendly advances with his shoulder up and chin down . . . the real cold shoulder. But, as he became ready to sit still and concentrate, he enjoyed his work. As he discovered he could make written symbols work for him, mastery and enthusiasm launched one another. As daily reality grew increasingly palatable he was willing and ready to separate it from fantasy. As he traded immediate gratification for long-term satisfaction, he converted initial drudgery into the foundations of solid academic progress.

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In November he moved into the middle group in language arts and, because his reasoning skills were high, he joined the top math group. In January and February he joined a journal writing activity in his multi-sensory classroom. In April Freddy moved to the high language arts group. By June 1, age 7 years and 6 months he was where he belonged . . . at the top.

Freddy wrote this entry in his journal.

"I am a knight. I am strong and I ride a horse.
When pepul need me I rescyou them.
I like saving them."

Freddy the Ph(ony) D(yslexic) is on his way. The combination of time and training unlocked the "lidul dor" to his treasure. Indeed he is a knight, and now that he has been rescued he is free to rescue others. Freddy the former failure can take the Ph(enomenon) to any D(egree) he wants.

Writing: Appearance and Organization

Neurologists use the term "kinetic melody" to describe harmony between the thinking mind and the writing hand. Yet many students today have kinetic dissonance. The teaching of handwriting is a casualty of current mistrust of direct instruction, fear of bruising creativity, teachers' own ignorance of how to teach it, and unrealistically optimistic reliance on technology.

Well-prepared students need one comfortable, legible, manual symbol system for the following five pursuits:

note taking
phone messages
thank-you letters to grandmothers
love letters
getting jobs

Let's take them one by one.

Students need to be able to take notes by hand so they don't miss the point when the battery on the laptop dies in the middle of the lecture.

They need to be able to jot down the vital statistics in a phone message: "I will meet you on the Southwest corner of Madison Ave. and 60th St. at 6:00." The hapless fool who shows up on the Northeast corner of Lexington Ave. and 86th St. at 7:30 may lose a great significant other.

Grandmothers (and other humans) give nicer presents the following year to kids who have written good thank-you letters this year. Kids need to use this enlightened self-interest.

No convincing love letter ever came off a computer; search and replace is too easy.

Lastly, a friend recently sent me a copy of a business magazine article titled "How to Nail Down the Job after That Really Great Interview." Suggestion #1: write a handwritten thank-you letter. This will immediately raise you above the throngs of people who also want the job.

The manual system must also be automatic. Each of us has a finite supply of attentional energy. Students who have to concentrate on letter formation or spacing have a smaller supply for thinking. At a recent conference, Paula Tallal quoted Sir Charles Sherrington's 1906 words. "As I write my mind is not preoccupied with how my fingers form the letters. My attention is fixed simply on the thoughts the words express. But there was a time when the formation of the letters, as each one was written, would have occupied my whole attention."

We need to look at ergs and ohms.

No, ergs and ohms aren't mantras, nor are they lingo from some Steven Spielberg fantasy. They are engineering terms which belong in every classroom and every lesson. The energy required to perform a task is measured in units called ergs, and an ohm is a unit of resistance. A comfortable ratio between the two permits smooth performance. Take handwriting.

Tentative, feathery writing, which seeks safety in being nearly invisible, comes from insufficient or diffuse energy. Too much vigor produces dark wide strokes which may even tear the paper. When the student up-ends the pencil to use the eraser the poor paper looks like a gritty piece of swiss cheese.

The student who balances the ergs and ohms of handwriting can use his pencil automatically and focus on content. But dyslexic students are seldom so fortunate.

Although educators and parents have seen the paralytic cumulative effects of handwriting problems (which are particularly debilitating from junior high school through college), handwriting is often a minor part of the curriculum, splintered away from reading and spelling. What happens to the ergs and ohms?

Pre-school children learn to write their names, often interspersing upper and lower case letters, and writing on the right, left, top, bottom, or middle of unlined paper. These sprawling autographs look sweet on brightly colored free-form art. So far so good.

Kindergarten children often continue to write on unlined paper, and as long as their letters are recognizable, no one pays much attention to how they are formed. I watched Bobby write his name.

He drew one circle on top of another but was uncertain where to put the stick. Next he wrote o. Moving clockwise from the bottom he went around three times. He reversed both lower case b's as well as the y, and made all from the bottom up. His ergs and ohms were ideally balanced, as he reinforced his errors, joyfully instilling incorrect motions in his motor memory.

This intelligent young child had a hazy visual memory for printed symbols and needed multi-sensory training. Ironically, just as he became developmentally ready to learn handwriting, spring turned to summer, bringing a three month hiatus.

Most first grade teachers stress letter formation but some students need extra training. Bobby, like other intelligent children with visual-motor weakness, admired good handwriting but faltered as the year progressed. With resistance of hand to pencil or paper to stylus, ergs and ohms enter a lifelong tug of war.

As second graders solidify their first-grade skills, the child with weak handwriting is in the impossible position of trying to consolidate and acquire simultaneously, a double burden in his area of greatest weakness. Ergs and ohms are Montagues and Capulets.

In February Bobby was on the verge of printing smoothly when the rules changed with the introduction of cursive writing. He ended the year with a half grasp of each system and, presto, vacation.

In third grade, most teachers review letter formation and handwriting in the early fall but then pay them diminishing attention. Bobby was an imaginative boy with many stories in his head: dragons, dangers, and impossible rescues. But he had to think so hard about which letters to use, and how to form them, that his mind would outdistance his pencil. He would omit individual letters, whole syllables, then words themselves, and finally phrases. The battle of ergs and ohms killed off the meaning in his creation. Just when training might have really helped, June brought another vacation.

In fourth grade, decent handwriting is an untutored expectation. Bobby suffered predictably and, as he ventured to use increasingly rich vocabulary, his teachers commented more on his poor spelling and handwriting that they did on his ideas. He tried transcribing stories he had told into a tape recorder, but as others have discovered, there were too many words.

In fifth grade Bobby discovered the word processor was not an automatic panacea either. Many students with pencil problems are also keyboard clumsy. Without specific training a discouraging distance remains between thought and tool, perpetuating the erg and ohm battle.

Most sixth grade students experience a flood in both rate and complexity of thought, heightening the need for rapid writing. Bobby had semi-developed printing, cursive and keyboard skills, a headful of increasingly complicated ideas and a near-failing report card. His teacher commented: "Good classroom participation but unacceptable written work."

In seventh and eighth grades the picture darkened as demands increased. Bobby was diagnosed as having Developmental Output Failure Syndrome, a shutdown of output, and serious blows to self-concept coinciding with the swings and uncertainties of adolescence. The ergs were elusive, ohms pervasive.

In 9th and 10th grades Bobby was kicked off the varsity and barred from the musical comedy because of his academic average, and taken to see a psychiatrist. Finally, in 11th grade a school-coordinated team evaluation addressed the root of the problem.

Bobby received a six week training program in keyboard mastery, use of the word processor, and also cursive handwriting. He was taught rudimentary shorthand and encouraged to develop his own symbols for frequently used words. He received permission to use charts and models instead of essays for his social studies projects and for 50% of his book reports. He was allowed extra time for tests and exams, and in one course permitted to use a laptop instead of a pencil. In exchange for these modifications he was required to submit one extra written paper on a topic of his choosing.

Bobby graduated from school and is now majoring in psychology in college where he uses a word processor for all papers, tests, and exams. He can also take an accurate telephone message and write a legible thank-you letter.

Minor curriculum modification could prevent problems such as Bobby's. Multisensory training for all students would instill correct habits early. Maintaining handwriting instruction, coordinated with spelling and decoding, through the 6th grade is appropriate for quick students as well as slow ones. The quicker the mind, the more to tell; thus the greater the need for automatic handwriting. And, just as piano students learn scales and chords before being asked to play a sonata, our students need keyboard training before being asked to write electronic essays.

These steps could turn the tug of war of ergs and ohms into a handshake of agreement and friendship. Many dyslexic students need to make friends with their own pencil-using hands. Then they can proceed with ergs and ohms, thoughts and paper, proud of what they can do . . . by hand.

But wait a minute. Am I from Jurassic Park? Don't I know the wonders of electronics? Of course I do. How do you think this is being written? But in addition to smooth motor function students need firm language and well-developed study skills in order to organize what they read and write. This is the only way they can *use* the information they glean from technology.

Last spring I was a panelist on a nationally broadcast radio show. Our topic was how kids could and should harness the miracles of technology. A fellow panelist, a fifth grade teacher from California said, "I just loaded up my classroom with computers, and turned the kids loose. They're calling kids in other schools, they're accessing CD-ROM, they don't need me, they're getting everything they want from machines. It's great!"

I cringed. Technology is a great servant but a poor master.

While CD-ROM may be easier for dyslexics to use than a 14-volume encyclopedia, they still have to know what they are looking for and how to use what they find. There are Sunday drivers on the Information Highway just as there are on country lanes.

In talking to parents, teachers, and kids across the country, I hear consistent sets of needs and problems laid out. The points of view mesh, but each group seems to feel it is groping alone, signposts missing, measured miles hidden, and traffic signals dark. Yet the Information Highway beckons. What does this mean for students in general and for dyslexics in particular?

To travel the highway productively, the student needs the following seven elements: First a manageable vehicle, then a service road from which to survey the scene, next a clover leaf for access, also a magnetic-strip automatic payment card in the windshield for the smart-toll; in addition, bridges to span obstacles, and of course a map . . . either the old-fashioned kind made out of paper, or the newfangled version on an LED screen on the dashboard showing the point of entry, the destination and landmarks along the way. As wise John White says, "If you don't know where you're going, any road will take you there." Finally, travelers need a plan.

We can use these seven as metaphors for students' mechanical, linguistic, and intellectual Information Highway needs. They pave the way to safe, purposeful travel, avoidance of bottlenecks, collision, or confusion, and they keep kids from slipping through a hole in the Internet. All aboard?

The manageable vehicle, directed by the brain, of course, represents the computer. But we need to remember that it will only be truly manageable if the students know how to access, store, and record information. A brief training period will usually take care of the first two, but lengthier work is necessary for the third. Students, particularly dyslexics, need to learn efficient keyboarding skills before being turned loose on word processors. Developing "close enough for government work" hunt-and-peck systems is like going into training to groove a limp.

And in spite of the wonders of spell checkers for polished grammar, we need to remember that spelling, grammar, and vocabulary are the vehicles that give users access to one another on the Internet. Jalopies are figures of fun.

Vocabulary is the student's service road. In addition to techno-talk, kids need exposure and practice in each level of the basic progression of language. They need to acquire and use the raw materials of description, then comparison, then categorization. Ultimately they need to be able to think in analogy. Without these competencies, their computer work is simply button pushing. And we can no longer assume that students come to school with a full complement of linguistic basics. Many kids simply have inadequate exposure to language, sparse experience in using words, and limited opportunity to expand verbal skills.

A generous supply of accurate general information provides the clover leaf. For example, yesterday's paper had an article extolling the wonders of CD-ROM. It told how a viewer could ask for material on Beethoven, then request a few bars of the 5th Symphony, then ask for Beethoven's musical forebears and contemporaries, then explore the musical influence Wagner might have had on Beethoven's music, then see a listing of various conductors who were well known for their Beethoven interpretations. But of course to harness this power one would need to recognize Liszt, Haydn, Mozart, Bernstein, Mahler, and Masur. Without these clover leaves, the names would simply be informational litter.

In moving from one highway section to the next, the traveler goes through toll booths which are, in effect, demarcations. They separate and join the various sections into a whole. The six *wh* comprehension words (*who, what, why, when, where, how*) are linguistic toll gates. They form an organizational grid for absorbing, sorting, slotting, retrieving, and combining knowledge, ideas, and insights. Each offers a distinct territory, yet each is necessary to the whole.

Bridges are the travelers' spans, over water or rough terrain. An internal time line is a learner's bridge allowing him or her to move backward and forward in time in tracking historical themes, watching evolutions of discoveries, or perhaps comparing literary plot lines from different eras. Many of today's children, who could call off the numbers on their digital watches at age four, appeared to understand that invisible organizer, time. Yet as we see these same kids go through school, we see disturbing evidence of confusion or ignorance. Many can't say with certainty what day is three days after Monday or four days before Friday. Many have little or no sense of elapsing time and are confused and frustrated by such exercises as "Please write for the next fifteen minutes" or "You have two weeks to complete this assignment." Dyslexics, being particularly vulnerable to this difficulty, may need reteaching and strong reinforcement here. A firm grasp on the concept of time is integral to thinking and learning.

To make or read an intellectual map, the traveler must know point of departure, probable routes and landmarks, the general compass direction, and the location of the destination. Metaphorically this happens when students can sort ideas and information into hierarchical categories: main ideas, supportive fact, and incidental information. Or as Madeleine L'Engle says: *majah, minah,* and *mediocah.* Many dyslexics, often the brightest, see so many implications and so much excitement in all ideas that they have trouble with this type of sorting. They may decide that an idea a textbook or disk author thinks is the top of the heap is really bottom of the pile. Students are generally frustrated by this kind of exercise until they have moved from being intellectual collectors to being mental inventory winnowers. This developmental shift cannot be hurried.

To plan and reach a destination, the point of most journeys, even those composed of lazy meanderings, the voyager needs an image, a plan, and the necessary accoutrements. Even explorers hoping for Eureka! usually set out with a hunch. Total serendipity is rare.

Humans are unique in their capacity for Executive Function: the ability to initiate a plan, sustain attention and momentum, inhibit distraction, and shift gears when necessary. Executive Function gives structure and the likelihood of success to the process of having an idea, lining up necessities, laying out a schedule, following

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a procedure, monitoring progress, reaching the goal, and recognizing it as the destination.

In Executive Function, the thinker/planner/learner unites previously mentioned skills and activities into a meaningful whole. All are necessary. To try to use Executive Function without, for example, a reliable timeline or without the six *wh* words or with a meager vocabulary or sparse general information is a failed quest from the outset. At best, such travelers will be academic voyeurs ambling through Info-nosh.

Those children who have internalized the prerequisites for thinking will harness technology to their purposes. Many dyslexics are mechanically intuitive and drawn to little boxes. Wonderful! But inclination alone is not enough. What else do they need?

They continue to need the same language training, the tried and true organizational aids, the structured study skills they have always needed. Computer and technology intensify this need; they don't eradicate it. We must give students knowledge which they can join to modern electronic wonders. Then they will have the "tech-knowledge-y" to power their use and use their power.

Measures of Mastery

While testing is a fact of life, we need to reorchestrate it so it becomes a chance for the student to demonstrate (and glory in) new mastery. Too often it is Russian Roulette: either you know the answer or you're dead.

We need to follow the examples and precepts of Theodore Sizer, formerly Dean of the Graduate School of Education at Harvard, now head of the Coalition of Essential Schools in Providence. Writing in *Horace's Compromise, The dilemma of the American high school* (1984), he urges teachers to act the role of coach, teaching the fundamentals of the game, then watching, supporting and suggesting from the sidelines but not playing the action themselves. This allows the thinking student . . . so often the dyslexic . . . to own the subject matter from within instead of having it laminated on from the outside.

We can follow Sizer's suggestion that mastery be measured by what he calls exhibitions: science projects, models, maps, dioramas, art projects. The list is endless, and limited only by the students' or teachers' imaginations. Open-book exams, tests with the questions given out the night before, the week before, or even at the beginning of the term, chances to give answers into a tape recorder. These are but a few representative ways of honoring, learning, creating a positive climate, and liberating the dyslexics (and others in the class) to enjoy showing what they have learned.

A brief word here about two disciplines whose real purpose seems frequently misunderstood: math and science. In the hands of thoughtless adults these are presented as "get the right answer" subjects, when in fact they are the opposite.

We must distinguish between mathematics and arithmetic. Because arithmetic is presented in the early grades, and students are asked to memorize combinations and write down answers, many children and parents assume that early pencil computation is mathematics. Children whose writing is untidy or who have trouble with rote memory often decide they are bad at math, when in fact they may be potentially powerful mathematical thinkers. We need to keep reminding ourselves, administrators, and parents, that mathematics is a language and a symbol system through

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which human beings try to organize the spatial aspects of our world. Mathematics allows us to ask the questions which let us discover rules governing our universe. True mathematics invites questions; it is arithmetic which requires answers.

Similar comments apply to science. Many teachers who are not trained scientists themselves are afraid they don't know how to teach this discipline. So frequently science is neglected in early elementary classrooms, and in middle school becomes a subject for memorizing, reciting, and writing. No wonder students turn away. And what a loss, since many of our brightest dyslexics are budding scientists.

True science involves making observations about the world, recording them, having a hunch, and doing experiments to see if the hunch was right, and if not, why not. Students in science have the *rights* to *wrongs*, as do we all. Hear the words of as noted a scientist as Steven Jay Gould (1989): "If they had wished to avoid all possibility of error, Galileo would have trained his telescope on the next building, and Darwin would have stuck with pigeons."

Organization in Time and Space

The late Harriet Sheridan, Dean of the College at Brown University, used to say that organization in time and space are handy in elementary school, supportive in middle school, vital in high school, and prerequisite to success in college. That being the case, she said, start as soon as possible. She further stated that the difference between kids who make it in college and those who don't depends on whether they can orient themselves and their work in time and space.

She recommended that parents, teachers, and students work out a treaty involving when and where work is to be done—taking the kids' preferences into account. After all agree, they shake hands. Everyone is required to honor the treaty for six weeks. It can be re-negotiated after that time. This seems a benevolent tyranny.

Time

1. Using index cards and notebook rings, help each kid make a Days of the Week ring and a Months of the Year ring. The act of writing out the names—and adding small illustrations—will help the information stick. The students will readily see that the sequence is always the same.
   Use color: write the names of the weekdays in red and the names of the weekend days in blue. Write the names of the winter months in gray, the spring months in green or yellow, the summer months in blue, and the fall months in orange or brown. Save time for children to add their own illustrations. Use these time rings to play games about what comes *before*, *after*, or *in between*.
2. At home and at school, have a large calendar showing at least three months at a time. Color code it for recurrent activities and special days. At the end of each day, ask one child to put a little illustration of what happened that day on the appropriate square. This will provide a visual reminder of physical experiences arranged on a time line.

Then, help the children mentally travel back and forth. How many days last week did it rain? How many birthdays coming this month? How long until we go to the Science Museum? Walking the time line reinforces the invisible concept of the linear nature of time.

3. Probe each child's comprehension of time. Take nothing for granted. Teach what's missing.
4. Model ways to use the concept of time to plan, carry on, and finish.
5. Show kids how to measure and monitor their concentration spans. Ask them to look at the clock and start reading something they enjoy. The instant they lose their concentration, they look at the clock again. How much time has passed? Do this five or ten times. Make an average. Do the same thing with material that's hard. Measure in the same way. Then, like strengthening muscles, can they extend their span by a minute or two . . . or five? Kids who concentrate well for ten minutes are better off working in three ten-minute segments than trying to glue themselves to the chair for half an hour.
6. Offer practice in doing something "for ten minutes," etc. Knowing the feeling of elapsing time is a treasure of great worth during tests and exams.
7. Keep an analog clock on display. Seeing the hands go around reinforces the concept of the circular nature of time. Incidentally, Rolls Royce uses analog clocks because they are so easy to read at a glance.
8. Speak in the precise language of time, instead of in harried generalities of lateness: "We need to leave for the library in fifteen minutes. You have a nice bit of time to finish what you're doing." vs. "Oh, my Lord, how did it get so late? Hurry up. We don't have time for that now."
9. Listen for the presence or absence of verb tenses and endings. If absent, model. If they don't stick, get an evaluation and help.

Space

1. Arrange consistent workplaces.
2. Teach children to preview the materials they'll need, locate them, and have them ready *before* starting to work.
3. Have a designated destination for completed work.
4. Provide colored folders for different kinds of work—one pocket holding "to do," the other holding "work in progress."
5. Explain to parents the importance of a designated work space at home.
6. Explain why each kid needs a backpack into which all schoolwork goes.
7. Give assignment pads with big pages and good spaces between the lines. Three-inch by five-inch spiral-bounds lead to cramped, illegible writing.

Conclusion

On my first draft of this article, I hit G instead of Q, and produced the title A Teaching and Learning Guilt. Guilt belongs on the shoulders of those who do less than they could with kids in their care. Quilts belong on the shoulders of those who combine artistry, purpose, and love.

Make your quilt.

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CHAPTER 7

Rights vs. Reality

Knowing the Child Is More Important than Knowing the Law

* * *

G. EMERSON DICKMAN, III, J.D.

> *The adversary nature of the proceedings should yield to obtaining the right result for the child.*
>
> —New Jersey Supreme Court

Knowing the law is nice, but knowing the child is essential. In order to advocate effectively, you have to (1) know the child's profile of strengths and deficits; (2) know how those strengths and deficits manifest themselves academically, socially, and emotionally; (3) know the state of the research regarding etiology and implications for treatment; (4) develop a knowledge of essential program elements, staffing requirements, technological support, and facilities; (5) armed with this knowledge, advocate *for* the child, not against the school; and (6), last and least, know the law. In my twenty years of educational advocacy, I have found that most parents and advocates respond to the fact that the system is not working for the child by demanding that the system do a better job or fix whatever is wrong. We advocate for change without a complete understanding of what change is needed. If the system isn't meeting the needs of the child, it is usually because they don't know what to do to meet those needs. It may be that the school district and the professionals are the ones that are supposed to know, but if they don't know, you can't get the proverbial blood from a stone. This is not intended as a condemnation of our educational system, but simply to draw attention to the obvious. For instance, regardless of education and experience, one person cannot know all that is necessary in order to meet the needs of every child. Therefore, it is up to the parent and advocate to know the single child for which they are responsible in sufficient detail to instruct and inform the well-meaning educator as to unique needs of that child. It is not enough to ask for help—it is not enough to know something is wrong, a responsible parent must know what help is needed. Without such knowledge, due process provides a false promise.

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The Law: The Individuals with Disabilities Education Act (IDEA)

The law is simple, i.e., every child has the right to a free and *appropriate* public education (FAPE). The only problem with this very simple concept is that an educational opportunity that is considered "appropriate" for one child may not be "appropriate" for a second child. Therefore, in order to know what the law requires, we have to understand what "appropriate" means. By means of litigation, it has been determined that appropriate simply means that the child must be able to *benefit* from the educational opportunities provided. The debate now centers on what is meant by the word "benefit." Many believe that the "benefit" must be achieved within the area of the child's deficit. Therefore, a child with dyslexia, for instance, may not be receiving a "benefit" if he is provided access to content knowledge and not taught to read. Obviously, a bright dyslexic child could learn about social studies or science by listening to tapes, watching videos, and obtaining tutorial assistance. He would be benefiting from the educational opportunities he is provided, but he would not be achieving any growth in the area of his identified deficit. Another concern is the extent of the benefit required. It is reasonably well accepted that the "benefit" received must be more than *de minimus*. Simply saying that the benefit must be more than *de minimus*, however, does not support the conclusion that it must be at least "meaningful." Nevertheless, for the purposes of this article, I am going to accept that the law currently requires the educational benefit in the area of deficit to be meaningful. Of course, by doing this another subjective term has simply been added to a chain of subjective terms, i.e., "appropriate", "benefit", "meaningful." In order to effectively debate these terms and provide a logical and cohesive rationale to support our goals, effort must be focused on gathering the facts (understanding the child) and championing what is right, rather than devoting resources to uncovering what is wrong and placing blame.

The Law: Section 504 of the Rehabilitation Act of 1973

Section 504 is a civil rights statute that is even more complicated and subjective than the IDEA entitlement to a "free and appropriate public education." The benefits of Section 504 are available only to those who seek its protection. In other words, under IDEA, the system must seek out those with special needs and respond appropriately. Under Section 504, the party seeking its protection must identify himself to the system and request reasonable accommodations. Section 504, summed up in the fewest possible words, says:

> If a pupil has a *disability* that results in a *substantial impairment* of a *major life activity*, including learning, and the pupil is otherwise *qualified*, the school cannot *discriminate* and fail to provide *reasonable accommodations* without being subject to investigation by the Department of Education's Office of Civil Rights.

The key words are as follows: disability, substantial impairment, major life activity, qualified, discriminate, reasonable accommodations. The six highlighted terms have a subjective quality that requires each to be analyzed in relation to the unique characteristics of the individual.

Advocacy

In order to properly advocate for a particular child, one must adhere to the following principles:

1. know the child's skill *profile* (strengths and deficits);
2. know the manifestations of such skill profile (academically, socially, emotionally);
3. know the state of the *research* (organizations, experts, literature);
4. know the appropriate *response* (program elements, staffing requirements, equipment, facilities);
5. assume an appropriate *perspective* (advocate for the child, not against the school); and
6. know the *law*.

The Supreme Court of the State of New Jersey has stated that "The adversary nature of [due process] should yield to obtaining the right result for the child." [*Lascari v. Bd. of Ed.*, 116 N.J.30(1989)]. It is this perspective that makes due process litigation unique, i.e., both sides to the dispute, theoretically, seek to obtain the right result for the child. If this is the case, the party with the greatest ability to communicate a rationale for its objective, based on a knowledge of the child, is going to prevail. Indeed, *knowing the child* is more important than *knowing the law*, even when we are in court.

The best way to approach the development of a rationale to support a particular educational goal is to adhere to the three "P's" of advocacy: Profile, Program, and Placement.

First, the *profile* of the child is developed through evaluations, interviews, and observations. The profile obtained is unique to the child. The *program* developed for the child in his IEP must conform to the hills and valleys of this profile. Thereafter, the *placement* is determined based on the least restrictive environment capable of implementing the program determined by the profile. In a broad sense, this is the scaffold on which the advocate hangs his knowledge of the child in order to rationalize an argument that his objective will obtain the "right result for the child."

What Is a Learning Disability?

The best description of a learning disability that I have ever read or heard was crafted by Sally Shaywitz, M.D., at Yale University, Department of Child Study. Her description helps us to visualize the *intra*individual discrepancies that may lead to failure and unexpected underachievement. Dr. Shaywitz stated simply that: "A learning disability is a weakness in a sea of strengths."

There are certain deficit profiles that have been recognized in the research or have been clinically observed, which are sufficiently common to have received broad recognition. Some of these profiles, such as dyslexia, (phonological subtype) are recognized as being the result of a discrete deficit. Other profiles may be made up of one or more discrete deficits that occur in a, more or less, common pattern, such as Nonverbal Learning Disabilities, Executive Function Deficits, and Attention Deficit Disorder. Whether these profiles are referred to as "subtypes," "profiles," or "constellations of discrete deficits," the conclusion is the same, i.e., there are different profiles of learning disabilities that each result in different academic, social, and emotional manifestations.

Executive Function Deficit

An individual said to have an Executive Function Deficit has difficulty initiating, organizing, planning, self-regulating, maintaining attention, and inhibiting behavior; as well as an inability not only to attend to present, but also to the future; and an inability even to prepare for action (intention).

You will note that subtypes of learning disabilities often have individual characteristics or manifestations in common. Executive Function Deficit, Attention Deficit Disorder, and Nonverbal Learning Disabilities share several discrete characteristics. It is the pattern of such deficits that identifies a particular profile.

Attention Deficit/Hyperactivity Disorder

The profile of characteristics describing a person with Attention Deficit/Hyperactivity Disorder is rather well known (DSM IV).

Such children often have difficulty:

- Giving close attention to details (make careless mistakes),
- sustaining attention,
- listening when spoken to,
- following through on instructions,
- organizing, and
- sustaining mental effort.

They also often:

- Lose things,
- are easily distracted,
- are forgetful,
- fidget and squirm,
- can't sit in one place,
- run or climb excessively,
- have difficulty with quiet play,
- are "on the go,"
- talk excessively,
- blurt out responses prematurely,
- have difficulty awaiting their turn, and
- interrupt or butt in.

A close look at this paraphrasing of the DSM should cause one to question the clinical precision of the diagnostic criteria available to identify this disorder. Also, since we are only evaluating *effects*, how many different causes may there be and what implications does this knowledge (or lack of knowledge) have for treatment? A diagnosis of AD/HD is not the end of a search; it is merely a sign post pointing the way.

Nonverbal Learning Disability

A profile justifiably attracting attention in the field of learning disabilities at this time is most commonly known as a Nonverbal Learning Disability (NLD). Such persons are not as the name may imply, "nonverbal." In fact, they often appear to have excellent expressive language skills—they talk easily and often. Their most obvious difficulty is the ability to process nonverbal (paralinguistic) cues. They have difficulty interpreting nonverbal cues such as body language, facial expression, gesture, tone of voice, and figurative language (e.g. sarcasm, inference, innuendo and hyperbole). The NLD child also displays unusual problems with anticipating, problem solving, formulating concepts, following directions, and benefiting from past experiences.

The clinical profile exhibited by NLD is surprisingly consistent:

- WISC: Verbal score significantly (>12) above Performance score.
- GESTALT: difficulty relating parts to a whole and creates images constructed in a part-by-part fashion.
- MATH concepts are relatively weaker than reading skills.
- Visuospatial skills are impaired.
- Bilateral Tactile, perceptual and psycho-motor impairment that is more pronounced on the left.
- Difficulty attending to tactile and visual stimulation as compared to auditory stimulation.
- Dysgraphia.

This profile and much of our current understanding of NLD is the work of Byron Rourke at the University of Windsor in Ontario, Canada, and his colleagues.

Dyslexia

An individual with the learning disability known as dyslexia evidences:

- Deficits in phonological processing.
- Unexpected difficulties with single word decoding.
- Conspicuous problems in reading, writing, and spelling.
- Difficulty attending to auditory stimulation as compared to visual and tactile stimulation.
- Relative strengths in perceptual and visual spatial skills and math concepts (as compared to arithmetic calculation and language-based problem solving).

There is currently broad consensus among researchers and scientists as to the definition of the language-based disorder involving phonological processing known as dyslexia, i.e.:

> Dyslexia is one of several distinct learning disabilities. It is a specific language-based disorder of constitutional origin characterized by difficulties in single word decoding, usually reflecting insufficient phonological processing. These difficulties in single word decoding are often unexpected in relation to age and other cognitive and academic abilities; they are not the result of generalized developmental disability or sensory impairment. Dyslexia is manifest by variable difficulty with different forms of language, often including, in addition to problems with reading, a conspicuous problem with acquiring proficiency in writing and spelling.

Dyslexia is currently the most understood and best defined of all learning disabilities. Note that dyslexia involves difficulty attending to auditory as compared to visual and tactile stimulation, where as NLD involves the reverse.

Examples of Less Common Profiles

Asperger's Syndrome

- Social peculiarity (aloofness)
- Motor rituals
- Unusual responses to sensory stimuli
- Non-social attachments (e.g., pieces of string)
- Unusual interests (e.g., calendars)
- Precocious skills (e.g., reading, rote memory)

Aspergers is often considered as one end, the most extreme, of the Nonverbal Learning Disability continuum. It is also considered to be part of the Autism spectrum of disorders. It shares significant similarities and differences with both. For instance, it is similar to autism except for the commonly high level of intellectual functioning and the fact that the verbal score on he WISC usually exceeds the Performance Score. However, the social peculiarities seem to go beyond that which would be explained by a struggle with nonverbal deficits alone.

Orthographic Dyslexia

- Poor recall of letter/word appearance
- Poor recall of letter/word sequences
- Overreliance on phonologic features
- Slow reading rate

Orthographic Dyslexia is a controversial subtype, it appears that there may be a variety of causes for why a person exhibits difficulty with symbol recognition. In other words, the orthographic subtype of dyslexia appears to be heterogeneous with each etiology having a different developmental course and implications for treat-

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ment. Orthographic dyslexia is relatively rare; if, as expected, there are different deficit profiles within this subtype, the chances of meaningful research being done on large numbers of similarly effected students is probably remote. In spite of the fact that it is recognized to exist, it will probably remain not fully understood due to a lack of valid and reliable empirical data.

Polymorbid

- Elements of NLD
- Elements of ADHD (not a responder to psychostimulants)
- Elements of Executive Function Disorder
- Sensory hyper/hypo sensitivity
- Obsessive compulsive traits (perfectionistic)

Interestingly, this child who I have identified simply as *"polymorbid"* displays a pattern of behavior that appears to presage the development of psychosis. I have often been told that such children when put on a trial of Ritalin, due to their ADD type symptoms, react badly—"go off the wall." Ritalin is not a tool to diagnose ADD because psychostimulants usually have some beneficial impact on the ability to attend and concentrate even in the non-ADD population. The reaction of the polymorbid child is, therefore, unusual and possibly of some diagnostic significance.

Every child is unique, one-of-a-kind. Fortunately, however, every child is not so unique that we cannot learn about their needs and get direction as to treatment by studying in other children with similar profiles. The information we get from studying a group can generalize to the individual even though the individual was not part of the study and the similarities are relatively superficial. In other words, you can classify eggs as jumbo, large, medium, or small and by doing so, learn something about the egg. On the other hand, there are always differences within a classification that must be addressed to describe the individual, e.g., small jumbo, two yolks, thin shell, brown. The point is, we know a lot about dyslexics, but we don't know everything we need to know about Tom, Sally, or Jim, who happen to be dyslexic.

Manifestations

One of the greatest deficiencies that we suffer in our current multi-disciplinary approach to evaluation is that the evaluations and, therefore, the discussion of findings usually stops at diagnosis or, if not at diagnosis, at the point of making generic program recommendations, e.g., small class size, seat in the front of the room to avoid distractions. The knowledge of the evaluators is often rich in the information for which parents hunger. The speech and language evaluation that concludes that the child is intact in every way except that he has a significant problems with "pragmatics" does not satisfy the parents' need, nor does it give direction for remediation. How many parents are aware that their child's behavior that seems to be oblivious to consequences, their child's difficulty with decision making and problem solving, their child's overreacting, and ultimately their child's isolation and sadness may be a result of his difficulty with "pragmatics"? How much more

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meaningful is it to parents who are told that their child has a problem with "auditory figure ground discrimination," if they were also told that such a deficit may explain why he doesn't come when he is called for dinner, or why he may appear deaf when his hearing is perfectly normal? Are kids that interrupt being rude, or are they compensating for a weakness in the ability to store or retrieve information from long term memory? Are children that know the rules but appear to choose not to follow them being oppositional, or do they have a neurologically based deficit that interferes with their ability to generalize knowledge to practical applications? How confusing is it to have a child who speaks well and often, but won't answer simple questions if you don't know the difference in the mechanisms used for the production of spontaneous language as compared to demand language? What about the student who prints everything and has difficulty taking assignments from the blackboard? Both the teacher and the parent might be overlooking the fact that the script the teacher uses on the blackboard is a different symbol system from the print used by the student.

Many children display what appears to be paradoxical behavior because the manifestations of their deficits and disabilities have never been fully explained to the people supervising the various domains in the child's environment, e.g., teachers, coaches, lunch aides, parents. For instance, the child with a nonverbal learning disability does not usually have difficulty expressing himself verbally. On the contrary, such a child often has very well-developed expressive language skills. Unfortunately, this child who talks easily and often when in control of the content of the conversation (spontaneous language, sometimes called "cocktail language") has difficulty formulating thoughtful and structured, hierarchical (main idea with supporting detail) responses when asked meaningful questions. The teacher's interrogations are as threatening and ego defeating as the neighbor's willingness to hear about such a child's interest in medicine, weather, or insects is comfortable and ego enhancing. To the parent the teacher is rigid and insensitive, to the teacher the child is oppositional and willful, and to the child the world is confusing and hostile.

One of the core manifestations of NLD is the inability to deal with "nonverbal cues" such as: body language, facial expression, gestures, tone of voice, sarcasm, inference, innuendo, and hyperbole. Such a child's difficulty with these paralinguistic cues and related visual-spatial deficits result in problematic peer relationships. Researchers interested in the mechanics of normal psycho-social development have determined that prosocial behavior is intimately involved with the development of perspective-taking and role-taking abilities. They have determined that the ability to understand another person's point of view and the ability to recognize different visual perspectives generate from a common basis. Therefore, it makes sense that the individual with NLD who has difficulty with visual attention, visual memory, prosody, semantics, and pragmatics has a significantly impaired ability to interpret the paralinguistic cues necessary to develop a sense of another person's perspective. Unfortunately, the NLD child is often not seen as having a learning problem until approximately the fourth or fifth grade. By the fifth grade such a child can no longer rely on his phonological processing and memory skills to achieve in school, and the growing reliance of his peers on nonverbal language reaches a peak. At that time, the child suffers a "surprising" problem with concept formation and critical thinking skills, has no friends, and has either withdrawn from communications with adults in authority, or begins to act out.

Complicating our goal is the fact that much of what we understand may be based on common myths. Dyslexia is a visual deficit. Right? Wrong. Read the following paragraph out loud:

Finished Files are the Result of Years of Scientific Study Combined with the Experience of Years.

Now count the "F's" in that paragraph. (Yes, you can go back and look at it.)

If you have counted three "F's", you agree with 99 percent of the people who read this paragraph. Indeed there are six "F's" in the paragraph. Apparently, your brain is looking for the sound /f/ and not the symbol "F" and, therefore, you did not count the "F's" that represented the sound /v/. Marilyn Adams put it this way: "The symbols of alphabetic language, graphemes, encode phonological information." Sally Shaywitz said: "The task of the reader is to transform the visual precepts of alphabetic script into linguistic ones—that is to re-code graphemes (letters) into their corresponding phonemes." I say: "good readers *see sounds* and good spellers *hear letters*"—think about it.

Dyslexics often have good visual-spatial skills allowing them to display unique abilities such as writing backwards or upside down. As a result, they suffer the possible paradox that these advanced visual-spatial skills may indeed slow up the processing of symbols that can meaningfully exist in more than one spatial orientation, such as: b-d-p-q; m-w, 3-Ɛ; 5-2 and 6-9. In other words, it's possible that a strength in visual-spatial skills may compound the impact of a phonological processing deficit on the ability to acquire fluent reading skills.

Observations that point out relationships or correlations between two phenomena often do not identify the direction of cause to effect or disclose a common cause variable. For instance, the erratic eye movements observed while poor readers try to read have recently been shown to be the result, rather than the cause, of poor reading ability. The common cause variable problem is often observed when a dysfunctional family is seen as the cause of a child's delinquent behavior when, in truth, it is the unremediated learning disability of the child that underlies both the dysfunction of the family and the delinquency of the child. Beware of drawing conclusions based on correlational evidence alone.

Extrinsic (Environmental) Influences

The primary environmental factors that have been found by research to influence academic achievements include: school failure, low socioeconomic status, and adopted child status. There is nothing about this revelation that is surprising to anyone in the field. A great deal of time and money is being regularly dedicated to addressing academic deficiencies seen as resulting from low socioeconomic status. Adopted child status is a complicated discussion that cannot be adequately addressed, even in a cursory manner, in an article such as this. Unfortunately, due to the way in which our youth and family services delivery systems are set up, it often appears to focus blame on environmental factors, when they exist, to the exclusion of neurobiological causes. In other words, there are two factors that often dictate how an agency responds: (1) "referral bias": they tend to respond to the situation based on the background and experience of the person assigned to help rather than the needs of the child; and (2) "conservation of diagnosis": they tend to see only one problem or need at a time, e.g., they treat the emotional problem rather than the deficit that caused problematic relationships that, in turn, resulted in the emotional problem. Environmental influences must be recognized as only part of the equation that results in a dysfunctional child or family.

Aptitude-Achievement Discrepancy

School failure is, in many cases, a trauma that can be avoided. Unfortunately, our system of education is such that school failure has become a prerequisite to obtaining help. At the present time, the majority of school districts apply an Aptitude-Achievement Discrepancy formula to determine the eligibility of students for special education services. Central to an Aptitude-Achievement Discrepancy Formula is a reliance on evaluation of achievement or potential with a comparison to other children. *Any formula that determines the existence of a disability based upon a student's performance or achievement as compared to a group norm is fatally flawed.* Any such formula requires that the student cross a *"threshold of severe failure"* (Nancy Mather, University of Arizona) before the student can receive service delivery. It is also clear that the student must remain on the wrong side of this threshold to justify continued service delivery. Such a formula overlooks young, remediated, and compensated students with disabilities. In kindergarten, where no one reads, the dyslexic often gets no help. Parents often withdraw private remediation because their child, as a consequence, is doing too well to get support in school. After a year of failure, the school provides support, the parent provides remediation, and the child tries to recover from a year of failure and humiliation. Children who are bright enough to cover up their disability often do not experience failure in terms of norms until their unique gifts and potential have been permanently compromised. A prime example of the cost this short-sightedness has to society is the Nonverbal Learning Disabled (NLD) child. Such a child usually has good phonological awareness, memory skills, and expressive language that carry him successfully through the fourth grade. In the fifth grade weak visual motor integration and poor concept formation, inferential thinking, and problem-solving skills, taken together with an inability to deal with nonverbal language, such as body language, facial expression and tone of voice, cause the NLD child's academic and social world to collapse like a ton of bricks. This would just be an unfortunate unavoidable circumstance if it were not for the fact that such a child can be easily diagnosed years before any problem develops. Without intervention and early remediation, such children suffer a very high risk of exhibiting self-destructive and antisocial behavior. If we wait until children *fail* to help them, we do so at a devastating cost both to children with learning disabilities and society. "The only thing an aptitude/achievement discrepancy formula prevents is prevention" (Jack Fletcher, University of Texas). Eligibility for service delivery for a student with disabilities should be based on *intraindividual criteria* alone. We must evaluate children as individuals and not as failures.

Manifestations Profile

Without being aware of the variety of manifestations that can be exhibited by a person with a learning disability, one cannot be aware of the actions that should be taken to avoid embarrassment and failure. Further, the appropriate focus of remediation and intervention can be easily overlooked. Is the child being oppositional, needing psychological counseling and therapy, or does he have a neurologically based disorder that interferes with communications skills which requires language therapy?

Often "referral bias" adds to the confusion. For instance, not too many years ago an attention deficit child who went to a psychologist was determined to be suffering a psycho-social problem resulting from inadequate early bonding, or due to the fact that he was picked up when he cried; whereas, the same child brought to a neurologist was determined to have a neurologically based disorder and treated with medication. The point is, the most important component of a child's profile is a thorough understanding of how different deficits are manifested in each domain of a child's environment; e.g., in school, on the playground, during the walk to and from school, in the backyard. This knowledge must flow in two directions: from cause to effect and from effect to cause. He doesn't seem to hear me when I call him for dinner—why? He has an auditory figure-ground processed deficit—what does that mean in relation to his ability to function in school, at home, with friends, etc.?

Social Skills

Often when children are having problematic peer relationships, there is a recommendation that they be provided "social skills" training. The complexity of the task is rarely recognized either by parents or by therapists. When social skills are not acquired developmentally, they must be taught. An analogy can be made to the dyslexic who, due to a phonological processing deficit, does not readily acquire the ability to decode written language, unlike the other 60–80 percent of the population. Therefore, the dyslexic requires explicit and direct teaching in order to learn such skills. Similarly, the child who does not readily acquire social skills must be introduced to them by direct teaching methods. However, compounding the situation is the fact that knowledge of social skills does not mean that the person is capable of applying such knowledge. The difficulty in generalizing social skills knowledge supports the need for mentoring programs (those programs that teach social skills in the environments where they are to be applied) and parent training in order to promote active listening (See *Parent Effectiveness Training* by Thomas Gordon and *Between and Child* by Haim G. Ginott) and appropriate modeling.

Matthew Effect

Keith Stanovich coined the phrase "Matthew Effect" to describe the phenomenon of a minor disability resulting in global deficiencies. The phrase is taken from the gospel according to Matthew in the Bible where it is inferred that the "rich get richer and the poor get poorer." An example would be a dyslexic child whose difficulty in reading is not sufficiently remediated so as to permit access to information necessary to acquire knowledge in areas not related to the child's deficiency, e.g., science, social studies, biology. Therefore, the child with an unremediated disability may eventually suffer deficiencies, in many unrelated academic areas. Often you can see the extreme of the Matthew Effect reflected in declining IQ scores.

Examples of Postsecondary (Section 504) Accommodations

By the time a student with a deficit in learning skills gets to college, it can usually be assumed that his needs in the secondary environment have been: (1) remediated (2) compensated (3) accommodated, or (4) avoided. If a particular deficit is likened to a pothole in the student's information highway, early intervention and remediation fill it in and compensation, accommodation, and avoidance take the child around it. The problem for college students occurs when secondary environments take the easy way out and lead students with a learning deficit around these potholes without showing the way or filling in the potholes. Such students, although intellectually capable, are ill equipped to deal with postsecondary challenges without support.

As an example, consider a bright dyslexic (subtype involving phonological processing) with good visual memory skills. This student may do reasonably well in elementary and secondary environments, having some unexpected difficulty in foreign languages, and do well on SATs due to good analytical skills. In college, this student often hits a brick wall. The sight word vocabulary, built up slowly over the years in elementary, middle, and high school, that was adequate to meet the challenges of those environments, is no match for characteristic language, full of unfamiliar orthographic patterns, used in almost every course encountered in college. Reading that was merely slow and tiresome in high school becomes almost impossible as the need to rely on the processing of phonological and morphological information increases. Further, a student who responds well to visual and tactile/kinesthetic stimuli finds himself in large lecture classes requiring interpretation of auditory stimulus alone without even the benefit of Socratic interaction to engage analytical and concept formation skills. Expressive written language is difficult not only due to spelling problems but also due to the lack of a phonological and morphological understanding to readily engage the jargon and vocabulary characteristic of the discipline. With help, this student may not only succeed, but eventually excel in learning. Without help, this student's potential to himself, his family, his community, and society as a whole may be forever lost.

There is no formula that applies to all students with learning deficits. Each student is unique. The student described above may initially require reduced credit load, remediation in reading by a learning specialist (to gain an understanding of phonology and morphology), a tutor to support lecture classes, and accommodations to permit oral responses to essay questions. Successful supports will result in a gradually increasing course load and decreasing accommodations. As this student progresses in college, the freedom of course choice increases and the selection process naturally leans toward courses with high interest that tap strengths instead of weaknesses.

Many high school students with deficits in executive function (e.g., anticipating, initiating, organizing, planning) are often provided with the guidance, supervision, and structure necessary to succeed. They are told what to do, when to do it, and how to get it done; often without sufficient consideration of what will occur when these supports are withdrawn. The freedom of a postsecondary environment is, to such a student, equivalent to being thrown into the deep end without the ability to swim. Such a student can learn to swim if given proper instruction. A decreased course load with remediation (direct instruction) and support (supervision and mentoring) to develop temporal judgment and executive function skills will quickly provide the motivated student with the tools to succeed.

Postsecondary environments also often encounter the student with learning deficits who has received effective remediation in his deficit area but has been spoon-fed knowledge and/or received watered-down curriculum in content courses through misdirected tutorial support. This student often lacks the metacognitive skills necessary to acquire knowledge on his own. He must now learn *how to learn*. Study skills, note taking, time management, classifying, categorizing, test taking strategies, and prioritizing are some of the skills that are needed to be an efficient learner. Such a student, given appropriate accommodations and direct instruction in metacognitive skills, will progress rapidly to acquire the distinction of an autonomous learner.

Students with deficits, even if fully remediated, come to college with a history. They need to learn to articulate their needs and advocate for themselves. They need counseling and support to begin the process. Accommodations have to be crafted to the unique needs of the student, the professor, and the course. In order to be effective, the student needs a sounding board or a counselor who is experienced, knowledgeable, and cares enough to brainstorm necessary, acceptable, and appropriate accommodations, e.g., preferential seating, oral exams, course substitutions, note taker. There are many situations faced by the student with learning deficits that can easily be solved. A student who prints and has never learned script may not be able to read the problems, comments, notes, or assignments the professor writes on the board—in script. Cursive is a different symbol system from print. The student with problems in the retrieval of information from long-term memory may simply need to learn to use key words to unlock whole ideas or concepts.

For instance, as a dyslexic, I was left back in first grade because of problems reading. A "C" student except in concept-oriented courses, I failed out of the freshman year in college due to reading problems and a lack of study (metacognitive) skills. The degree I finally sought in college (in the early 1960s) was the only course of study that didn't require a foreign language. Any interest I may have had in psychology and philosophy had to be suppressed in favor of time and motion study and industrial engineering. A little compensation, a little knowledge, and a little choice resulted in a successful senior year in which I acquired 56 credits to make up for the failure in the freshman year. With help, I could have avoided the failure and followed a path dictated by my interests instead of the one necessary to avoid my weaknesses. Still, I was one of the lucky ones. How much easier it all would have been with a little remediation and appropriate support.

How many students are lost, how much talent is wasted, how long is progress delayed because otherwise promising, capable, creative, and motivated students cannot find an environment in which to function? Colleges and universities that do not recognize the support needs of students with learning deficits do the student a disservice, the institution a disservice, and the community a disservice.

"*Myth of Mildness*" (Edwin Martin, Director of the Bureau of Education and the Handicapped):

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One lesson this article is intended to reinforce is that learning disabilities are not mild. Learning disabilities are not only academically disturbing, they are also emotionally disturbing, job disturbing, family disturbing, and socially disturbing. The thought that a child with learning disabilities will be fine once he moves on from an academic environment ignores the reality that most so called "learning" disabilities severely impact the individual's ability to effectively communicate in all the domains in his environment. For instance, a nonverbal learning-disabled individual clearly has difficulty with the paralinguistic cues that enrich oral communications, the dyslexic has difficulty with the sound/symbol system that underlies written communications, and the child with executive function disorders has difficulty, planning, organizing, and initiating activities. Learning disabilities are not mild and their impact is not limited to academic achievement.

Happiness

The child's happiness is paramount. As an attorney with a specialty in educational advocacy for over twenty years, I can, without hesitation, state that the one common factor linking all of my clients is that the child involved is unhappy. It doesn't matter whether the child is getting all A's or is failing in school; if the child is unhappy the parents are seeking change. If the child is happy, they are hesitant to support change unless there is a fear of future unhappiness. Ask yourself what are the four most important things that you've learned during your high school years (give yourself a minute to think before proceeding).

Except for learning to drive, the vast majority of responses to this question can usually be categorized as either a *social skill* (learning to get along with people, learning to lead, making friends), an *executive function* skill (learning how to plan, organize, strategize), or a *metacognitive skill* (learning how to learn study skills). It amazes me that the most important skills that the vast majority of individuals feel that they have learned during high school were, for the most part, learned by default.

Not too long ago I asked 110 mainstream and special education teachers to provide me with a word or a phrase describing a trait that made for a successful child. Their answers were as follows: "happy", "self-confident", "cooperative", "motivated", "organized", "popular", "creative", "resourceful", "self-directed", "caring", "good self-image", "not afraid to accept a challenge", and "competitive." I want to underscore the fact that it was an audience of teachers and not parents that generated this list. This fact makes it all that much more significant that *not one answer referred to academic achievement or intellectual potential.* There is not one trait that could not be exhibited by a child with a 50 IQ or could fail to be exhibited by a child with a 150 IQ. It would appear that the most important things we learn and the most important traits we acquire are not directly related to intellect or academic achievement. It is interesting to note that research on parenting styles (unrelated to learning disabilities) has also indicated that those styles that promote and reward *autonomous behavior* are more successful in producing an individuated child with a mature identity, than those parenting styles that simply reward academic achievement.

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Common Cause Variable

Many children with learning disabilities are also seen as having behavioral difficulties. By the time behavioral difficulties emerge, the family of the child with learning disabilities is often suffering significant interpersonal communications problems. In other words, Mom blames Dad for being too strict, Dad blames Mom for being too liberal, each blame the other for providing inconsistent parenting, and they both feel guilty because their relationship has suffered and they have no time to deal with the needs of their other children. The dynamics surrounding a family environment that includes a child with disabilities makes for an interesting and complicated study. However, the common assumption that delinquent behavior in a child is the result of a dysfunctional family is a vast oversimplification. In many cases, the learning disability is the common cause variable that results in the delinquency of the child and the dysfunction in the family. The reason this phenomenon is addressed is that therapies and interventions for the child are often misdirected as a result of the assumption of social service agencies that family dysfunction is the sole cause of the delinquent behavior. It is my experience that such misdiagnosis pervades social, family, and youth service agencies. Such agencies, law enforcement, and the judicial system must be aware of the link between learning disabilities and behavior if they are to provide successful intervention and remediation to prevent the development or continuation of inappropriate behavior.

Conclusion

Knowing the *child* is more important than knowing the *law!* The ability to rationalize the need for a particular program and placement based on the profile of the child is the key to determining what is *appropriate* under the law.

CHAPTER 8

Writing-Itis

A Common but Often Overlooked Problem Experienced by School Children

* * *

GLENDA C. THORNE, PH.D.

> *Society's task is not to establish equality. It is to develop systems that deal humanely with our inequality—systems that, within reason, celebrate and encourage diversity.*
>
> —Scott Peck

Jonathan does very well in class discussion, but not so good in written work.

Susan seems to understand complex concepts in class, but she can't put her thoughts down on paper.

Paul is a very nice young man until you put a pencil and paper in his hand; he then becomes quite uncooperative in class.

Rebecca is on medication, but it still takes her hours to complete her homework when it's really not that much work.

These comments are often made by the teachers and parents of school children/adolescents who have handwriting or graphomotor problems. While there is a plethora of information in lay and professional literature about attentional disorders and learning disabilities, little information is available to teachers or parents about difficulty with handwriting, a common but very often overlooked problem experienced by students in school.

Children with graphomotor difficulties are often labeled as "lazy," "unmotivated," and/or "oppositional" because they are reluctant to produce written work. Many times, these are the children who dislike school the most. Because they are sometimes able to write legibly if they write slowly enough, they are often accused of writing neatly "when they want to".

When required to write, students with dysgraphia (i.e., trouble with writing) frequently engage in numerous avoidance behaviors. They have to go to the bath-room; they need to sharpen their pencils; they need a Kleenex from their backpack. Sometimes they just sit and stare. Even disrupting the class and getting in trouble may be less painful for them than writing. Work that could be completed in one hour takes three hours because they put off the dreadful task of writing.

The following paragraphs will attempt to explain the various components of handwriting and the characteristics which students display when they experience breakdowns in these components. Handwriting has been defined as a complex perceptual-motor skill that is dependent upon the maturation and integration of a number of cognitive, perceptual, and motor skills, and is developed through instruction (Hamstra-Bletz and Blote, 1993; Maeland, 1992). Components of handwriting skills include visual-perceptual skills, orthographic coding, motor planning and execution, kinesthetic feedback, and visual-motor coordination.

Visual-Perceptual Skills

Visual-perceptual skills enable children to visually discriminate among graphic forms and to judge their correctness. Thus, visual-perceptual skills involve the ability or capacity to accurately interpret or give meaning to what is seen. Generally, a number of specific skills fall into this category, including visual discrimination, or the ability to distinguish one visual pattern from another, and visual closure, or the ability to perceive a whole pattern when shown only parts of that pattern. Adequate visual-perceptual skills are a necessary but not sufficient condition for legible written output.

Children with visual-perceptual problems may have a history of reading problems because of difficulty with letter and word recognition. In addition, if a child cannot accurately visually discriminate the letter *b* from the letter *d*, he/she will be unable to reliably reproduce these letters upon demand. If students have problems with visual closure, they may have difficulty with accurate letter formation and their handwriting legibility may be poor. For example, they may print the letter *o* with a space in the top, but perceive the letter as closed. When deficits in visual-perceptual skills are suspected, they may be readily identified by standardized tests.

Orthographic Coding

A second factor important to the production of legible handwriting is orthographic coding. Berninger and her colleagues (Berninger, Yates, Cartwright, Rutberg, Remy, and Abbott, 1992) define orthographic coding as the "ability to represent a printed word in memory and then to access the whole word pattern, a single letter, or letter cluster in that representation" (p. 260). Thus, orthographic coding refers to the ability to both store in memory and retrieve from memory letters and word patterns. The relationship between poor handwriting and orthographic coding deficits has been established in the research literature (Berninger et. al., 1992).

Students who have trouble with orthographic coding will often forget how to form certain letters in the middle of a writing task. They frequently retrace letters or exhibit false starts or hesitancies as they write. Observations of their written output may show that they have formed the same letter several different ways. When asked, these students can usually report if they have difficulty remembering what letters look like. Children who cannot reliably make use of visual recall to form letters and words often prefer to print rather than write in cursive because print involves only twenty-six different visual letter patterns, whereas letters written in cursive have a seemingly endless number of visual patterns. Their spelling errors may be phonetic in nature (Levine, 1987, 1994). For example, the word *burn* may be spelled as *brn*.

Motor Planning and Execution

A third component of handwriting is praxis or the ability to both plan and execute motor actions or behavior. Fitts and Posner (1967) describe motor skill acquisition as proceeding through three stages. The first phase is called the *cognitive or early phase*. In this phase, the learner establishes an understanding of the task and a cognitive map of the movements required to accomplish the task. In the second phase, the *associated or intermediate phase*, the movement patterns become more coordinated in time and space. During this phase, proprioceptive feedback (the feedback that the brain receives from the muscles and nerves) becomes increasingly important and the importance of visual feedback decreases. The final phase, the *autonomous phase*, is characterized by the development of larger functional units that are translated into a motor program which then occurs with minimal conscious attention. For example, a golfer steps up to the tee, wraps his hands around the club, places his feet just so so and then bends his knees. He then forms a cognitive map or image of what his swing will be like. After he has formed the cognitive map, he must then move his body correctly to carry out or execute the motor plan or image. Initially, the golfer may swing the club slowly, watching his arms as he moves through the swing. Eventually, however, his swing becomes more automatic and he relies less on visual feedback from his body to match his swing to his cognitive map of his swing.

Luria (1966) notes that a motor action begins with an idea about the purpose of an action and the possible ways in which this action may be performed. The ideas are stored as *motor engrams*. Thus, in order to carry out a motor behavior, we must have both the idea or image for what must be accomplished (i.e., the plan) and the ability to match our motor output to that plan. Therefore, both adequate motor planning and execution are necessary for handwriting.

Levine (1987) includes in the definition of dyspraxia difficulty with assigning the various muscles or muscle groups to their roles in the writing task. This definition focuses on the execution or output aspect of dyspraxia. According to Levine, in order to hold a pencil effectively and produce legible handwriting at an acceptable rate, the fingers must hold the writing utensil in such a way that some fingers are responsible for stabilizing the pencil or pen and others are responsible for mobilizing it. In a normal tripod grasp, the index finger is responsible for stabilizing the writing instrument and the thumb and middle finger are responsible for the mobility of the instrument during writing.

Poor motor planning and execution is referred to as dyspraxia. Deuel and Doar (1992) define dyspraxia as the "inability to learn or perform serial voluntary movements with the proficiency expected for age and/or verbal intelligence" (p. 100). Helmer and Myklebust (1965) discuss the role that memory for motor sequences plays in correctly forming letters when writing. Luria (1966) described two forms of dyspraxia. The first form involves difficulty in creating an image of a required motor movement. The second involves a breakdown in the central nervous system mechanism that is responsible for putting the plan into action. Thus, the child has the blueprint for how the motor movement for forming letters should be made, but has difficulty putting the blueprint into action—actually writing the letter.

Ayres (1972, 1975, 1985) suggested that the problem in developmental dyspraxia is in the neural activity that takes place prior to carrying out the motor behavior. According to Ayres, dyspraxia is generally viewed as an output problem because the motor component is more observable than the sensory or planning component. However, in her view, dyspraxia is an inability to integrate sensory and motor information, rather than merely motor production.

Children who suffer from fine motor dyspraxia show poor motor coordination. At times, they assign too many muscles to stabilizing the pencil or pen and too few muscles to mobilizing it. At other times, they assign too many muscles to mobilizing the writing utensil and too few muscles to stabilizing it. Thus, their pencil grips are often inefficient. They may develop a hooked grip in which they stretch out the tendons in the back of the arm so that the fingers move very little if at all during writing. With this grip, they are using the larger muscles of the wrist and forearm which may be easier to control than the smaller muscles in the fingers (Levine, 1987). They often perform poorly with other fine motor tasks that involve coordinated motor movements such as tying shoes or holding a fork correctly.

Another pencil grip that suggests fine motor dyspraxia is one in which the child holds the pencil very tightly and near the point when writing. Further, students with dyspraxia often change pencil grips from a normal tripod grasp to one that is less efficient (Levine, 1987). One student who was evaluated by the present author had to drop the pencil and pick it up at the opposite end in order to use the eraser because he was unable to rotate the pencil in his hand—a serial coordinated motor movement. Students who have poor motor planning and/or execution do not like to write and complain that their hand hurts when they write. They are often observed to stop after they have been writing for a period of time and shake their hands. Writing for them is a labor-intensive task. Fine motor dyspraxia is frequently associated with speech production problems because these children frequently have difficulty assigning the muscles in the mouth to specific speech sounds (Levine, 1987, 1994).

Kinesthetic Feedback

Yet another component of motor control for legible handwriting produced at an acceptable rate is feedback of the sensorimotor system, especially kinesthetic feedback, during the performance of motor actions. Luria (1966) points out that for effective motor action, there must be certain impulses, referred to as afferent impulses, from the body to the brain that inform the brain about the location and movement of the body. The body then makes adjustments based on these impulses to alter its movement pattern until the desired pattern is achieved. Thus, it is kinesthetic feedback that facilitates a good match between the motor plan and motor execution. In writing, the writer has a kinesthetic plan in mind and compares this plan to the kinesthetic feedback and then either corrects, persists, or terminates the graphomotor pattern (Levine, 1987).

Children with impaired kinesthetic feedback often develop a fistlike grip of the writing instrument. With this grip, they extend their thumb over the index and middle finger, limiting the mobility of the fingers. They may also press very hard on the paper with the writing utensil in an attempt to compensate for the lack of kinesthetic feedback. Further, they may look closely at the pencil or pen when writing, thus attempting to guide the hand using visual feedback, which is a much slower process. This is why children with impaired kinesthetic feedback may produce legible handwriting at a greatly reduced pace. As they progress in school, however, the demands placed on written output are too great and legibility deteriorates. These are the children who are often accused of writing neatly "when they want to." They also often prefer to use mechanical pencils and "scratchy" pens because these provide more friction on the paper when writing. They complain that their hand hurts when writing and they do not like to write. Performance in other fine motor skills may be adequate or good because many fine motor skills do not place such reliance on kinesthetic feedback. Research has shown that tasks that were designed to improve kinesthetic sensitivity improved handwriting performance more than a task that involved only practice in handwriting (Harris and Livesay, 1991).

Visual-Motor Coordination

Visual-motor coordination is the ability to match motor output with visual input. Although it is the nonvisual or kinesthetic feedback that is crucial for handwriting, visual feedback is also important. Visual feedback provides gross monitoring of writing rather than the fine-tuned monitoring provided by nonvisual feedback. It is this gross monitoring that prevents us from writing on the desk, crossing over lines (Levine, 1987) and staying within the margins.

Children with visual-motor incoordination function much differently than those with impaired kinesthetic feedback because of the different demands of certain motor tasks. Poor visual-motor integration may lead to problems with fine motor tasks that rely heavily on visual feedback. These include threading a needle, drawing, painting, craftwork, building things with blocks, repairing things, playing games such as Nintendo and using a mouse on a computer.

Strategies for Graphomotor Problems

For children who have difficulty with orthographic coding, it may be helpful to tape an alphabet line to the corner of their desk for easy reference.

Students with graphomotor problems should be given extended time to complete written assignments and/or a reduction in the volume of written output. For example, if the exercise given is to correctly capitalize and punctuate sentences or a passage, these should be provided to the student in typed form so that he/she has to only correct the work, rather than write it and then correct it. Also, if the assignment is to answer the questions at the end of the chapter in social studies, the student should be required only to write the answers, not both questions and answers. Additionally, he/she should be allowed to state answers in short phrases. In other words, if the subject matter being assessed is knowledge of information presented

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in the social studies chapter, it is this that should be assessed, not how competent the student is with the physical act of writing, or how much writing interferes with his/her ability to demonstrate his/her knowledge of social studies.

Children with handwriting difficulties may need to be given the opportunity to provide oral answers to exercises, quizzes, and tests.

Learning to type is helpful for students with handwriting problems. Parents and teachers should be aware of the fact that many children with graphomotor weaknesses also have trouble with typing, however. There are also software dictating programs for computers available.

Writing assignments should be done in stages. Initially, the child would focus only on generating ideas. Next, he would organize his ideas. Finally, the student would attend to spelling and mechanical and grammatical rules. There are computers software programs available with spell and grammar checks.

Students with graphomotor problems may need to be provided with information presented on the board or on overheads in written form, such as teacher-prepared handouts or Xerox copies of other students' notes.

Children with handwriting problems should be provided with written outlines so that they do not have to organize lectures or class materials themselves. This becomes particularly important in junior high grades.

Parents should be given the opportunity to purchase an extra set of textbooks for the purpose of highlighting, particularly for content area subjects. Also, notes may be made on Post-Its and then the Post-Its could be attached to a larger sheet.

It is often necessary to use alternative grading systems for children with graphomotor problems. One grade would be given for overall appearance and mechanics of writing, and the second for content.

When writing reports, it may be helpful for the student to identify her own errors and to correct these after learning specific strategies to do so. She would then list her most frequent errors in a workbook and refer to this list when self-correcting.

It should be stressed to school personnel that slow work habits are often a result of graphomotor difficulties and do not reflect deficits in motivation.

Electronic devices, such as the Franklin Speaking Spelling Ace, may be helpful for students with handwriting problems.

Parents and teachers of students with graphomotor weaknesses may need to lower their expectations and demands for neatness of written output. These students are very often unable to produce legible written work.

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CHAPTER 9

To Medicate or Not to Medicate

GERARD A. BALLANCO, M.D., FAAP

Prima non nocere.
(First, do no harm.)

Parents, teachers, public health officials, physicians, in fact, anyone who is awake is aware of the increase in the use of stimulant medication for children that has occurred in recent years. The use has doubled since the beginning of the decade. Are we opting for the easy fix to the detriment of children or is this increase appropriate? Are we helping the short term but delaying the development of personality and adult stability? Are we helping to prevent debilitating failure?

No one should tell parents how to raise their children, nor tell teachers what to do in their classes. It is appropriate to offer accurate information, suggest a ranking of available options, and help support the choice. If the choice, whatever it is, does not work, the original options need to be reconsidered or refined on the basis of this experience. This chapter is to offer information about some aspects of attention deficits and stimulant medication from the perspective of a general pediatrician.

There are a number of different voices being raised in the medicine debate. The Church of Scientology recently published a monograph on the subject of medication for mood and behavior problems. It is a biased, non-scientific tirade with little room for tolerance of another opinion. The makers of "alternative" drugs and non-standard therapies publish sensational scare tactics on the Internet to promote their products with no scientific evidence for effectiveness. Parents, teachers, therapists, and physicians may demand a "trial" of medication without willingness to go through an appropriate investigation of need or exploration of options. The medical and educational communities are learning more and more about how safe and effective these medications are for children appropriately selected.

Under most circumstances, parents are delighted to find out that there is a medication available to help their child. There are some questions about suggested treatment, but relatively few unless the medication is intended for long-term use. When stimulants are suggested, however, accuracy of diagnosis, alternative treatment options, effectiveness of medication, duration of therapy, and side effects are quickly questioned. There is often a mixture of worry about what the mediation may do and relief that something is available to help the child. Society and family prejudice against stimulant medication is softening, but still exists.

Stimulants for attention problems have been used for over fifty years. They may be the most studied substances in the history of medicine and are quite safe. They are effective in 80–90 percent of people with attention deficits. The cost is reasonable, dosage adjustment is easy, and, usually, the benefit is clear. If side effects occur, they are, usually, easily managed. Once the correct dose of medication is established, adjustment of effective dosage is infrequently necessary. In fact, if frequent adjustments (two to three times in a year) seem to be necessary, something is wrong—wrong medication, wrong diagnosis, something—is wrong, and reevaluation is necessary.

Strategic Concerns

Does stimulant medication used to help a child with attention deficits lead to drug abuse? Does it deny the child the opportunity to develop a sense of responsibility? Does the labeling of a child as having attention trouble and taking medication adversely affect opportunity? These are some of the most frequently asked questions.

Individuals with diagnosed ADHD have a higher incidence of illegal drug use, alcoholism, and smoking than do matched peers who do not have this diagnosis. This is especially true of individuals who show significant defiant behavior. The unexpected thing, however, is that people with ADD do not abuse the stimulant medications; they use and abuse other drugs. The lack of abuse by individuals with attention problems makes sense since stimulant medication does not make them high. It simply helps them to focus better and think about what they are doing or are about to do. It appears that the use of stimulant medication does not influence a person to use or abuse other substances. It is more the condition itself, especially if the child has oppositional or defiant behavior, that points to that path. That certainly does not mean that everyone with attention problems or oppositional behavior will end up abusing drugs.

Developing a sense of responsibility is something that each person does at his or her own pace. It is influenced by the people we meet and try to model and the situations that we experience. It comes from recalling and internalizing values and the successes and failures that we experience throughout life. The critical element in developing responsibility is that we must be able to *reflect* on what we do before we do it, compare the contemplated action to past actions in similar circumstances, and sort of anticipate the possible outcomes before choosing what to do. People with attention deficits often do not do this. People who are not really paying attention may not find many tasks that merit this kind of reflection. Some people don't have the mental energy to carry through on tough tasks.

The very elements of attention deficits make development of responsibility very hard. It does happen; but, it happens more slowly. Mistakes are repeated, much more so than usual. It is a painful process learning how to manage an inattentive brain; but it happens. Strategies, spouses, and secretaries are parts of the adult world of coping with responsibilities and may be an integral part of an individual's competence. Medication appears to temporarily accelerate the sense of responsibility when the person is taking the medication, but when the medication wears off, old ways return. Taking medication does not slow the development of the sense of responsibility; but it doesn't speed it up too much either. It is important to explicitly state to the child that having an attention deficit does excuse an individual from the responsibility of or for action or inaction.

As attendants at this year's Plain Talk about K.I.D.S. meeting found out in a very lively panel discussion, "labeling" is an issue that can divide a panel of experts. Do you say a child has ADHD or describe a person who is inattentive, impulsive, and overactive? Do you use friendlier and more accurate words? The person is inconsistent and has inconsistent mental energy to bring to task. He often fails to process information deeply enough to consider all of its important points; he does not preview his actions; he fails to make transitions easily. How does the legislature deal with the myriad possible descriptors of children with attention problems without a label to put them under? How does an attorney demand that their needs be addressed? How do we stop the label from stereotyping a child?

The obvious answer is to incorporate the useful elements of each. We must keep insisting that descriptors accompany labels. Eventually, people will come to recognize that the descriptors are much more important and useful for individuals than the label. Some families are delighted to have a name for the nemesis that has plagued them, others find a name odious. Which is correct? Both.

Federal law prohibits discrimination against individuals with "disabilities." An individual with a significant attention deficit may be in this category. Schools, including universities, accept students with attention deficits and may have programs for students with special learning needs as well. No school that accepts federal funds may deny admission on this basis; in fact, admission of students with disabilities may be desirable to satisfy enrollment for special programs.

A Word about Disabilities, a Warning about Accommodations

The word *disability* conjures up feelings of hopelessness and sadness, of pity and sorrow, and "it just ain't so." It is also very disheartening and emotionally defeating to be labeled as unable to do something, and this may give a kid a great reason to stop trying. An age-appropriate explanation needs to be offered as to why he or she is having difficulty, and plans need to be mapped out with the child as to how to reach the desired goals in spite of these barriers. Do not allow the youngster to retreat into helplessness. A child may have extreme difficulty staying still in class, but that does not mean that he should be allowed to disrupt activities. A non-punitive approach focusing on goals, using reasonable accommodations and an appropriate balance of nurturing and accountability can be developed with extra effort that pays huge dividends. This is true whether medication is used or not.

Accommodations may be a legal right, but they must be reasonable if they are to be accepted by the teacher and other children. Accommodations do not work if they are generic; they must goal directed and tailored to the needs and strengths of a particular student. Explanation should be offered the child as to the reasons for the accommodations and the child should be taught to advocate for himself or herself. It may be appropriate to have the child pay a price for an accommodation so that he can say to himself "I may not have to write as much as the other children, but I have an extra project. I don't have as many problems, but mine are harder." It helps save face and pride and supports the concept that fair is not necessarily equal.

As Mel Levine points out, childhood is a time of intense lack of privacy and little self-directedness. As children, we are expected (forced?) to be well rounded and good at everything. Some people just aren't. They may have some excellent edges, but if deficiencies are noted, they are harped on and the skills frequently ignored or forbidden as punishment to the student for his judged lack of trying. That treatment

is disabling and cruel and wasteful. We need to spend far more time identifying strengths and helping the child to recognize and develop them. Strength recognition and development need to become a part of the mission statement of every family, school, and classroom in the country.

The child must clearly understand that his behavior is his responsibility and that attention difficulty or ADD is not an acceptable excuse for inappropriate behavior. He or she certainly needs the love and caring of the teacher and safety of belonging to the class, just like any child. He or she may also need some modifications of class routine to be able to learn or demonstrate what s/he has learned. Usual accommodations include shorter or longer time to complete task or test, preferential seating in class or individualized testing to minimize distraction, close visual monitoring, prearranged signals, allowing the child to move, visual signals to help with impulsivity, etc. He may need additional protection from predatory behavior of other students and occasionally by teachers. Protecting the child is an absolute and sacred responsibility of school administration—with no exceptions.

What are the side effects of stimulant medication?

It is always worrisome to write or speak about side effects because the focus may cause folks to feel that stimulants have such a host of problems that they should be avoided. In fact, stimulants tend to be gentle medications with occasional individuals experiencing side effects that are, usually, easily managed. They should not be used casually, but when appropriate should not be feared but approached with caution suitable to any medication.

It is both good and bad that the stimulants have a relatively short period of activity. They work fast, within thirty minutes, but don't last very long. The short acting medications usually last two to four hours, the longer acting ones may last four to ten hours. There is significant variability from one person to another, but an individual is usually consistent. From a side effect point of view, that means that if something undesirable happens, the medication can be stopped and it will wear off quickly. More often than not, if one medication causes trouble, a different stimulant medication may be well tolerated.

For discussion, the significant side effects will be grouped into personality or behavior changes, appetite and growth changes, somatic complaints, tic problems, and miscellaneous events. Although this list of side effects is not exhaustive, it is fairly broad in coverage. Most children take stimulants with benefit and no or minimal side effects.

What about personality effects?

The medication is not to change personality. It is not acceptable to have medication or other therapy remove the sparkle from a child's eye. Except in extremely rare circumstances, there should be no exception to this position. The child's activity may be less frantic than before and less impulsive, but neither parent nor child usually objects to these things.

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Mediation is not to control the child. It is to enable the child to control himself. It may make the youngster more reflective before doing things and he may remember better what he is supposed to do, but he won't be much more enthusiastic about cleaning his room than before the medication. It does not make the child any smarter or any less smart, nor does it make him an angel. It should not take the mischief from his eyes but it should help him to decide when to act and when to ponder. It lets him consider options better, thus he has better control.

One possible mood side effect is a sort of generalized sadness, quietness, moodiness, or grouchiness. These may be seen alone or in combination. Sometimes these symptoms occur when the dose is too low or too high, but if the dosage adjustments do not result in prompt loss of these symptoms, the mediation must be stopped. A different medication should be considered under these circumstances.

Sometimes, a rebound phenomena occurs, i.e., as the medication is wearing off, the symptoms are worse than before it was started. This behavior change occurs *only* when the medicine effect is wearing off. The proper treatment is to offer one-half of the usual dose at that time and the rebound will stop. Some medications (Adderall) seem to cause rebound less than others.

The "zombie" state that critics scream about occurs rarely and is due to too high a dose of the medication. It is quite disturbing to see but this behavior goes away very quickly when the dosage is lowered. To avoid this, many practitioners start at a low dose of the medication and increase it every four to seven days until the desired effects are seen. If excessive quietness develops, lower the dose for a bit and try again after a week or so, or change the medication.

Many individuals who have attention deficits as a result of brain damage, significant developmental delay, genetic conditions, or a central nervous condition such as cerebral palsy are much easier to deal with, seem happier, and are more efficient learners when they take stimulant medication. Often, however, they are helped by very small doses of stimulants and are frequently "brittle" from day to day. Attention, impulse, and behavior problems in these children are often difficult to manage, requiring a combination of information, communication, compromise, negotiation, flexibility, creativity, and medication. Medication benefits are often significant. Very close communication among the team members (teachers, student, parents, physicians) is critical.

What about appetite and growth?

Stimulants were developed as appetite suppressants; and they do suppress appetite. To avoid this effect, we give the medication just before, during, or just after meals. When multiple doses are given, finding an appropriate window of opportunity to eat with good appetite may be challenging. This is especially true of children in higher grades who take a third dose to do homework or children whose morning dose wears off before the class's usual lunch period.

A temporary slowing of growth may take place for a period of time after starting stimulant medication, but it returns to previous projected pattern. The most affected component of growth is weight gain and individuals who are heavy to begin with are most affected. It is rare, if ever, that a child's growth is permanently affected by stimulants. Strangely, growth may be temporarily slowed even in children whose appetite remains good. Even children who take stimulant medication only during school, using it less over weekends and summertime, often have a similar pattern of temporary weight-gain slowing, with marked exceptions in some individuals. Growth is one of the parameters that should be monitored by the child's physician every four to six months.

What about tics and Tourette's?

A tic is an involuntary motor movement, such as eye twitching or a mild head jerk action. Some individuals have throat clearing or sniffing type noises as a tic; this is a "vocal tic." Quite a few people have tics which are mild, noticed by some friends, but not very impressive. Tics usually come and go, wax and wane and are usually worse when the individual is nervous or stressed. The type of tic may change over time and tics tend to go away when the individual is concentrating intensely. An individual who has combined vocal and motor tics which interfere with major life activities that last more than one year has Tourette's syndrome, one of the tic disorders.

The optimal management of a child who develops tics in therapy is unsettled. Years ago, people thought that stimulants could cause Tourette's syndrome; we now know that is not the case. Half of the people with Tourette's syndrome have symptoms of ADHD before they get any tics. If an individual is "scheduled" to get Tourette's, the medication may cause the symptoms to come somewhat earlier. As with simple tics, some specialists stop stimulant medication if an individual develops Tourette's syndrome, others consider the options and make a decision based on benefit and risk. Some specialists use higher than usual doses of stimulants to help control the tics of Tourette's.

Somatic complaints and miscellaneous events?

Some individuals develop stomach aches or headaches on stimulants. These symptoms generally appear early in the treatment period. They usually start one to two hours after the medication and last three to four hours. If the symptoms don't fit this pattern, they may be due to another cause. Usually giving the medication with food will get rid of stomach ache as a problem. It is unusual to have to stop medication due to stomach aches.

Headaches may be different. The headache may be due to not eating, so this needs to be investigated. If headaches fit the above pattern and continue for more than two weeks or are intense, the medication needs to be stopped, then changed.

Difficulty falling asleep is frequently mentioned as a side effect of stimulants, but it is relatively unusual with mediation taken twice a day. Many people with attention deficits have difficulty falling asleep anyway. Some individuals with very active brains may take the medication to help them fall asleep, finding that it helps them to focus better and allows them to calm their brainstorms. If you try this, do so on a weekend, so that there will be an opportunity to catch up on sleep if it doesn't work.

Trouble sleeping can occur in individuals who take an afternoon or evening dose of the medication to study. The most difficult time to fall asleep seems to be at the time the medication is wearing off, typically, three to four hours after taking it. Considering that the after-school dose needs to be juggled to encourage the youngster's appetite with timing to allow easy sleep, common sense, creativity, and flexibility are all good to have.

Occasionally, other unwanted events can occur due to medication. This is true of any medication and almost any activity that a person may engage in. It seems healthy to consider any unusual events or behavior that begin after a medication has been started to be due to that medication. The mediation may be found innocent, but each unusual event needs to be considered.

Some of What We Think We Know about Children with Activity, Attention, and Impulse Control Problems

We know for sure that attention problems are not like being pregnant: you can have a little trouble with attention. That little biological propensity can become a major problem if the environment stresses weak areas. Attention control is very situation dependent.

Attention deficits often runs in families. Many, many times when I am discussing or asking about the kinds of difficulties that are heralds of attention problems, one spouse will keep looking at the other until one finally says "I'm just like that!" or "You have this!"

That is often a benefit to the child. One parent can readily identify with the child and the frustration and troubles that often come with attention problems. He also knows the good of it. The other parent obviously finds some of these traits attractive, or this child would never have been born. Families understanding of the youngster's behavior and recognition of this as a family pattern can give the child and family both comfort and solidarity. "If my daddy has this stuff and he has a job and got married and had kids and stuff, I can too."

It seems that we are dealing with a phenomenon that is a part of the individual's biologic package. We often see symptoms of poor regulation of sleep and appetite, unpredictable response to a lot of different stimuli in the *infant* history of many children who demonstrate symptoms of ADD as toddlers and school age children. Brain research sometimes indicates displaced nerve bundles or voids where there should be nerve fibers in individuals with ADD and ADHD. There may be reverse or absence of normal asymmetry of the frontal lobes of the brains. Specialized radiologic techniques have revealed differences in glucose utilization and differences in blood flow in attention areas of brains of individuals with attention deficits. Damage to the areas of the brain that relate to considering options or exercising appropriate judgment causes a loss of skills present before the injury. Scientists have identified a gene that disposes a person to be a "novelty seeker."

The big problem with much of the recent biologic research is that, often, it is not reproduced by other investigators. That means that there is, still, no reliable "objective" test for ADD. The diagnosis is still made clinically after considering information from several sources, ideally, supported by the diagnostician's observations.

Many practitioners believe that ADD and ADHD symptoms are behavioral pathways for a variety of biologic and emotional situations. That would explain why research results are often complementary rather than absolutely reproducible. In other words, it makes sense that ADD and ADHD are not unitary conditions. The symptoms are common to many different conditions and, perhaps, situations. There are, almost certainly, "sub-types" of ADD and ADHD, conditions that are present simultaneously, and aggravating circumstances that change the appearance and influence of attention deficits.

The Most Common Commonality

It is obvious to parents, teachers, aunts, friends that sometimes the child tries desperately to control behavior, motion, or attention and is unsuccessful. At other times, the child seems to be easily in control, and other times, partially. This is enough to drive folks to despair. The inconsistency is maddening and always there is the judgmental side of each person that says, "I've seen him do it. Why can't he continue to do so?" "Why does he listen to his father better than his mother?" "How come he has so much trouble this year and last year was no problem at all?"

I'm not sure that we have the answers to all of these questions or all of the answers to any of them. Dr. Mel Levine feels that inconsistency is an integral part of most attention deficits and relates it, in part, to an inconsistent supply of mental energy. As is obvious from recent research findings, emotion exerts tremendous influence on the ability to think, learn, and act. Perhaps recalling that daddy is not as patient or vocal as mama and is more likely to do something unpleasant helps thought patterns in the heat of the moment. Some teachers or subjects may gel with the child's affinities, others may clash. Thus we have reasonable explanations of some situations, many more are waiting their turn. But we have one consistency: inconsistency.

It appears, however, that the most common element of all children with attention deficits is the inability to consistently exercise the option to think about what they are supposed to be doing. It seems that these individuals do not get the option to consider the options. They are suddenly thinking about matters outside of class and not aware that they are doing so. They fail to remember to raise their hand because in the excitement of knowing the answer, there was not any thought about the rules of classroom behavior. Not much benefit to punishing; the child doesn't think about getting punished until someone points out that he has broken a rule. It's the lack of previewing that is the culprit. The child knows the rule, he forgets to check to see if there is a rule that applies.

In this context it is easy to see why children with attention deficits do not change behavior after punishment. What the child needs is a warning and reminder to keep the rules in mind. He needs to be gradually introduced to transitions. Peers need to be taught to appreciate his differences and difficulty waiting his turn and still protect their rites. That requires a lot of time, monitoring, good will, peer and parent understanding. Most teachers, peers, and children tire of the constant surveillance and intervention. It is not a lack of good will on anyone's part; people just get tired. Even when the child has a clear understanding of his strengths and areas of difficulty, it does not necessarily give him the control to deal with them unless he is in an ideal environment that follows him through school.

I guess my position is pretty clear. If a child has an attention deficit and is in trouble because of overactivity, impulsivity, and inattention, and reasonable attempts to help him deal with these tendencies at home and school have been unsuccessful, stimulant medication should be offered. Medication should not be the first and only step in dealing with these issues. Non-standard therapies such as anti-oxidants, brain training, etc., have not stood the test of scientific scrutiny. Diet therapy is rarely successful and extremely difficult to implement. Exclusively behavior modification therapy trains the child to cope with certain situations but is so labor intensive that it usually ends unhappily. Parents and teachers are already pushed by their lives and jobs. The amount of energy that they have available is limited. Medication is an option that should not be taken lightly, but, if needed, should not be avoided.

CHAPTER 10

Plain Talk from a Parent's Point of View

* * *

RUBY BRIDGES HALL

> *The most significant correlation to learning is a significant relationship.*
>
> —James Comer

That first morning, years ago in 1960, I remember Mom saying as I got dressed in my new outfit, "Now, I want you to behave yourself today Ruby and don't be afraid. There might be a lot of people outside this new school, but I'll be with you." That conversation was the full extent of preparing me for what was to come. But the noise, I'll never forget. "2!-4!-6!-8!, We don't want to integrate!" That was easy to remember. I wondered what it meant. It sounded like something I wanted to say. Thirty five years ago, I took on a job that circumstances, faith, and the community chose me to do. That job was to improve the quality of education for all of our children. A very tall order for a six year old.

I no longer have to wonder why all of this had to happen to me or why my childhood was so different. I've finally realized that we all may not be equally guilty, but we are all equally responsible for building a decent and just society for our children. I continue to be guided as if by some unseen hand toward a renewed understanding of what extraordinary things ordinary people are capable of. It isn't complicated. It isn't fanciful or abstract. It doesn't take a lot of experts to implement. It is the vision of people from neighborhoods, people from next door, coming together through and for the children, learning by our own efforts, supporting one another, focusing on what's important, and namely, working through our schools to rebuild our families and our communities. That is my mission and that is our future.

What I want to do today is just talk a little bit about what I am doing today, the work with my foundation. How I came to do this work. First, I think it's very important to establish that I'm speaking today as a parent. I think that's important. I know that today and the next couple of days, there are going to be a lot of experts here that you can go in and listen to. But, right now, this room doesn't have any. I am not an expert and I want to establish that up front. But that's OK. Because the focus of my work is just that, that it doesn't take experts, that parents do have something to say about educating our children. And, I just want to share with you a little bit of my life and how a light came on for me that I needed to be more involved, that as a parent, I did have something to say. And so if you just bear with me, I'm going to talk a little bit about that day that you've just seen on tape, and also when

I talk about parental involvement, it's not quite that parental involvement that you saw up here on the screen that I'm talking about. Heh, it would be great if we could get everybody to come out like that, but that's not quite what I had in mind.

Anyway, let me just start. In 1960, the New Orleans public schools were totally segregated. Black children and white children attending school together did not exist within the system and very powerful forces exerted their full power to see that things remained that way. A few ordinary but courageous people risked everything to change that situation. The people I'm referring to were not only politicians, church leaders, or law enforcement personnel, but ordinary people. They included parents who knew even then that the best start to a better life was through a better education. They included parents like my mother, who maybe wasn't so aware, but was told that this would be the ticket of admission to a living-wage job. I was six and one of four black children chosen by federal court to integrate the schools. For weeks, federal marshals had to escort me into school through angry mobs, and as I walked beside my mother through those mobs chanting their words of hate, my mother knew she lacked the skills to help me with my homework, but she possessed courage, faith, and determination. In those troubled, turbulent years, the entire neighborhood, a neighborhood of working people with limited education and limited exposure to the wider world, came to my daily assistance. Some helped dress me for school. Some helped me with my homework and others walked me to and from school after the federal marshals had departed. The time they invested, not to mention the great personal risk they took, was freely given. That was simply a whole village raising a child. And the entire village reaped the rewards of a great community accomplishment, and the achievement of historical change. That community saw the benefits in this cause and how it would ultimately affect all of their children and themselves.

Today, I look upon a bleak world, whose hope and humanity is shrouded in the darkness of poverty, crime, apathy, and drugs. What I did as a six-year-old child in 1960 was a tall order, but what the community did by believing in itself and each other was even a taller order. What we face today also is a daunting, but desperately necessary task. We must create out of our own actions a plan for a future that is hopeful and sustainable through our own efforts for our children. Some of us believed that those troubled years of desegregation would elevate the public school system to a higher level of understanding and education for everyone. But instead, profound changes have transformed our society from a labor-intense, industrial society to a new information society which seems to concentrate information in fewer hands than ever and provides few clear paths to upward mobility for poor, inner-city communities. Additionally, budget cuts, student-parent apathy, and overworked, underpaid staff have taken our inner-city schools further away from the dream that I and my parents and neighbors once shared. Many kids are being raised by grandparents, aunts, and older siblings. Less than 10 percent of these parents or guardians have ever visited their children's' school, let alone participated in any school-related activities.

I, too, failed to see this lack of parental skills and involvement within my own family. And having been a single parent myself at one time, I know how hard it can be to spend time actively participating in your children's education. A few years ago, my youngest brother was murdered in the same housing project where I grew up. He left behind four daughters, ages four through eight. Their mother, having been raised in the same cycle of little or no parental support, left these little girls to practically raise themselves. All this I noticed when I took them into my home, and for

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six months, I and my family attempted to educate their mother in basic parental skills. I saw those children respond in such a positive way to the guidance and structure they now had in their lives. I finally saw some hope and possibility for them. Then one morning, their mom simply packed them up and returned to the housing project. She apparently gave little thought about her children and what she was depriving them of—a future. I don't think she even realized that they needed or deserved a future. She was too young. We tried everything to keep the girls with us, but we failed. And in failing, we felt we had failed my brother. Though I couldn't give them the future I'd hoped for, I no longer had to wonder why all of this happened to me. I finally realized that I have not done all that I am supposed to do. Simply because we can't give a future to one child doesn't mean that we can't give hope and a future to other children and in the process build healthier families and more stable communities.

What I began thirty-five years ago as a young catalyst for the desegregation of the New Orleans public schools has now evolved into my life quest. The long path through angry mobs seemed endless thirty-five years ago. Yet, it's still unfolding for me. This time I don't have my mother's hand to guide me, and instead I am reaching my hand out to other parents of other children in the hopes of guiding them back into the schools and taking an active part in their children's education. My dream was first visualized at a middle school here in New Orleans through a program created to help enhance the school's ability to build healthy, positive, and nurturing relationships between children, families, and educators. I also began the development of the Ruby Bridges Educational Foundation to help provide the resources needed to support and expand the program. With the growth and the success of the foundation, I want to expand these programs to support not only schools here in New Orleans, but across the country. I believe that the vision we willed into existence through courageous, broad community action, through the actions of children, is more important now than ever before. And it isn't complicated. It isn't fanciful or abstract. It isn't hard to understand and it doesn't take a whole lot of experts to implement. Instead, it's the vision of people from neighborhoods, people from next door, the next block, coming together, slowly, through the children, to kind, small, difficult, successful steps one at a time. Learning through our actions and mutual support, working to develop healthy, positive, and nurturing relationships between our children, parents, educators, and other members of the community, picking one another up when we stumble, focusing on what's important, and namely, it's what we're doing, helping ourselves and others, our families and neighbors, and schools and our communities.

When I think about what sustained me back in 1960, that's what it was—my family, faith, and friends. I don't believe that my parents could've gotten through that time in 1960 if it wasn't for the whole neighborhood coming together, being concerned about each other's children. And I think we've gotten away from that, and so, when I started working with kids, actually from working with my four nieces, I was sort of hopeless because when they left I felt like I had failed them. And then, I decided that I needed to get up and get out because there were more kids out there that maybe I could help. And I feel like that that's what we need to do. We need to come together to do that for each other's children. What happened after that is that I got up, sort of combed my hair after being depressed for quite a while and spoke with some friends of mine who had a school, and they were actually looking for a person that could sort of bring parents together, a parent liaison. And I thought, well, I can do this. This is what I was doing at home. I can do this. And, so he asked me

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"Well, do you have a plan?" and I said "No I don't. I don't have a plan. I'm just gonna go in there and do exactly what I did at home." And that's what I did. And it actually worked better than I thought it would. I met Diana Orr, who became a colleague and a friend, a teacher at the time, and Diana was instrumental in putting this school together and going out and looking for someone like myself, a parent liaison.

What happened after I was there and doing such a great job, the book was published—"The Story of Ruby Bridges"—and my life just changed. It took me out of the city, and traveling, promoting the book. Even though I felt like what I was doing was important, I needed to do it at an earlier level which took me back to Frantz School. So I went back there and actually started working with those kids, but what I found was that it was a little bit different. It was a different situation. The parents at the elementary school were very, very young. What I saw was the same thing that I had at home with my niece and her four children. It was another case of a child raising a child because the parents at the school that I integrated started at maybe 18 or 19 years old. Then with my traveling and promoting the book, I wasn't able to give as much attention there that I felt needed to be implemented. Then what I started to do was to put in programs, programs that would promote cultural awareness, an etiquette program—African dance, ballet, music. I put those programs in to motivate the parents. If their kids were taking part in those programs, then they had to come and actually be involved. I thought that maybe I could do that while I went out and tried to promote the book and talk about my foundation and raise money. I have a colleague of mine, Elaine White, who teaches and heads up those programs while I'm out traveling around. But, what I want to mention, is that by starting the foundation, what I was trying to do was take the program that I was doing at the school with Diana, the program that I put in place at the school that I integrated, the cultural awareness/parental involvement, and bring those two together with a parent liaison. I thought by creating the foundation to help support that was actually what we needed in the school.

What I did was I sat down and came up with some problems that I thought we should address. I want to go over those with you a minute. The first problem was that we felt like there was a need for a parent liaison in each school. That was because most parents feel uncomfortable dealing with administrators. I found by being a parent liaison that the parents were a lot more comfortable talking to me and having me relate the problem to the director or the principal. So, I felt like what I would do is raise enough funds to hire a parental liaison for the school. The second problem was that parental involvement is critical to the successful education of a child, but due to the growing problems of inner-city families such as poverty, crime, substance abuse, and broken homes, little support had been given to the educational process by the parents themselves. I remembered being a single parent, and I remembered how hard that was for me. As much as I wanted to attend PTA meetings and really get involved, I was working two jobs and that was very, very hard. I felt like what I needed then was different ways for me to get involved. Diana, myself, and some other colleagues sat down and came up with an idea instead of PTAs. We would develop teams where parents could come in and choose a team that they wanted to work on, and that would make it a lot more comfortable for them. They wouldn't feel like they had to go to a PTA meeting or they had to go in and grade papers. A lot of parents felt uncomfortable with that. One of these teams were called "Heavy Hitters," and it was for fathers. I also felt like we needed to get fathers more involved, and so we developed a Heavy Hitters team where the fathers could come in. They could move furniture. They could paint. They could do all sorts of stuff like that. It worked, and the fathers would come in. We'd organize some parents to get together and fix sandwiches. We'd have some music, and they would come in and have a good time straightening up the school. So, that worked fine. There was also a team called the "Family Support Team." The Family Support Team was a group of parents that would get together and offer support to other parents. There were a number of problems that I tried to address. Another problem was that there was no central source of information or assistance to identify the children's needs. That meant that I had to seek community resources to assist the children and their families because a lot of those parents didn't know where to go when they needed help. I remembered when my niece was living with me. She did not understand what was available to her. She didn't know where to go. I had to do that for her, to train her to go and get what she needed for her child, and that really helped. So I felt like this would be a great help to other parents in the same situation. All of that led me to do what I'm doing today. I really felt like I had neglected my own family, that I wasn't aware of what was going on around me, that I could've been a lot more involved with my nieces. That really bothered me and after getting over that, I decided to do something about it.

My message today is that we, as ordinary people, as parents, can get involved. It's very, very important. I think it's very unfair to lay that responsibility of educating our children onto the teachers without being there to support and help them. I'm no different than anyone else. Something had to happen in my life to get me to realize that I had to get out and get involved. That has become my life's work—to get out and talk to parents and tell them that, "Hey! You have a right to go into the school. You need to go. It's very important that you be there for your children." It doesn't matter. We're all sort of shy and embarrassed about certain things, but it's for your child. When it's for our children, we have to lay aside our feelings. That's what my mother did. I'm pretty sure that she was scared to death to take that stand and do what she did, but she felt that it was going to help her children. If a person can do that, then surely I can get out and stand here, scared to death talking to you, trying to motivate more parents to be involved in their children's education.

Thank you all for coming and sharing my life's work with me today. I appreciate it. Thank you.

CHAPTER 11

Lifeskills for the Juvenile Offender

A New Approach for the Criminal Justice System

* * *

THE HONORABLE DAVID S. ADMIRE

> *All children have intelligence. We have asked the wrong question. We ask how much. We need to ask what kind.*
>
> —Mary Meeker

Introduction

I appreciate the opportunity to be here to speak with you today about a subject that is of great personal interest to me. In 1980 and 1984, two events occurred which have provided me with unbounded joy and an incredible challenge and opportunity. In those years, I was fortunate to adopt two children, both of whom have learning disabilities (LD) and attention deficit disorder (ADD).

Some judges believe they know everything. Let me assure you, I am not one of them. However, I will endeavor to share my perspective with you. I probably view these issues from a different light than most of you. For once I leave my home, my perspective is one shared by few and that is my view from the bench.

It is the husband and wife drinking and fighting with barely controlled rage with small children crying out in fear begging for them to stop. These individuals lash out at each other causing injury, sometimes physically—always mentally. They stand before me awaiting judgment.

It is the teenager who never felt like he belonged. He begins to drink slowly, then faster, and finally is unable to stop. His judgment fogged by alcohol, this young boy commits a crime. He, too, stands before me for judgment.

It is the man who is lonely and afraid. He is unable to cope with his failed marriage or the pain of living without his children. He calls his wife threatening her and blaming her for his anguish. He is afraid as he stands before me.

It is the young adult who is frustrated and barely able to do that which is easy for others. He is unable to hold a job, told he is a discipline problem. This learning disabled teenager in his frustration explodes over a minor matter. He stands before me—angry and fearing the worst.

I sit in judgment on these defendants. I am expected to have the right combination of wisdom, compassion and patience while hearing the public's cry for protection and the defendant's plea for mercy. I, too, feel immense frustration, anger and even rage. For it is clear to me that well-meaning people in this country are robbing us of the unreached potential of so many bright and gifted young people. They have been cast away like so many rag dolls, condemned as discipline problems, stupid and lazy or a variety of other invectives that should never be applied to any child.

These same people are shocked when these kids turn to drugs to self-medicate, to gangs for acceptance or to welfare instead of work. They bemoan the taxes they must pay to build new jails, to hire more police officers, or to train those who failed to be educated while in school.

Many of the defendants who come before me are not necessarily violent by nature or inclined to commit criminal acts. They may be, as many are, suffering from undetected or undiagnosed learning disabilities.

I have come to realize this fact only because my children suffer similarly. I have observed the same type of frustration and anger in defendants that my children have exhibited. My children have given me a valuable education that is not available in law school or judicial education programs. Furthermore, these experiences have given me the opportunity to reflect on and consider the long-term and long-ranging effect these issues have on our criminal justice system.

This country has a long and rich history of protecting its citizens from the whims of the government and its people. Our system of government believes that individuals are important, and the concept that the government is subservient to its people is a radical notion even today.

This nation is not perfect and there are examples where we have failed individuals or groups of people, such as the Japanese Americans during World War II. Our people today are again fearful and vengeful. The object of their emotions is the level of crime which seems to be spreading across the face of this country. Everyday we read about the unsuspecting victim whose world is turned upside down by random violence. The cold fear that some day we may be a victim runs through us like an icy wind. The tolerance of our people is being tested. Once in our history we gave people the chance to change their lives for the better, that is now being replaced by the urge to lock up those who fail to live peaceably among their neighbors.

However, that raises the most basic question that must be posed to our citizens and to our government. For what do we punish the criminal defendant? Is it the mere commission of an act which we decide is a crime? Or do we punish the actions of individuals for acts that are willfully undertaken? An equally interesting question is, Do we hold someone responsible for actions that result from a physical condition over which they have no control? Add to that the fact the government may have itself aided in the development of and failed to recognize the condition. The concept of throwing away the jail door key becomes more difficult for a civilized country.

Before we discuss how the judicial system should approach learning disabilities and attention deficit disorder, I am going to discuss what I mean when I use those terms. A learning disability is a neurobiological disorder. A person with learning disabilities has differences in brain structure and/or function. These differences lead to difficulty in learning. Learning disabilities impede one's ability to store, process, or produce information, and thus, their minds work differently than those whose minds learn normally.

Learning disabilities can affect the ability to read, write, speak, or compute math. Furthermore, these disabilities can impair one's ability to build social relationships. Disabilities of this type can be complicated by problems with attention and the development of social skills.

Because learning disabilities have distinct characteristics, they should not be confused with mental retardation, autism, deafness, blindness, or behavioral disorders. None of these conditions are learning disabilities.

Attention deficit disorder is a neurobiological disorder that interferes with a person's ability to sustain attention or focus on a task and to delay impulsive behavior. ADD is characterized by attention skills that are developmentally inappropriate, impulsivity, and in some cases, hyperactivity. Individuals with ADD also have as a general rule average or above average intelligence and often have one or more co-existing learning disabilities.

The average American citizen lacks any knowledge or awareness of learning disabilities or ADD. However, approximately one in seven Americans experience some type of learning disability. Individuals with learning disabilities are generally of average or above average intelligence, but the disability creates a gap between ability and performance. People may be insulated from exposure to those suffering from learning disabilities since it tends to run in families. Even considering that, 15 percent of the U. S. population, or 39 million Americans, have some form of learning disability.

A Tale of Statistics

It is best, I believe, in discussing the issue of children and adults with learning disabilities in the criminal justice system, to begin with the costs. This is especially important for those who have little or no knowledge of the subject, or for those who believe my approach to this issue is just a way of coddling criminals. The costs can be broken down into various categories including the direct costs for judges, police officers, court staff, jails, and courthouses; indirect costs including alcohol and drug treatment, property damage and physical injury occurring during crimes; and non-system costs such as lost productivity and lost taxes.

Before examining the costs, we need to understand the numbers of LD/ADD offenders that may be going through our courts. These numbers have a direct bearing on the cost to taxpayers in funding their criminal justice system.

- 50% of juvenile offenders suffer LD or ADD[1]
- 80% of inmates in prison suffer from LD or ADD[2]
- 31% of adolescents with LD will be arrested three to five years out of high school.[3]

These numbers translate into a huge financial drain on the government. For example, in the State of Washington, the costs are as follows:

- $56,000 to incarcerate a juvenile for one year[4]
- $23,924 to incarcerate an inmate in a state prison for one year[5]
- $2,040 to hold a misdemeanant offender in the King County Jail for one month[6]

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Equally staggering are those statistics indicating those individuals who are a high risk to become involved in criminal activity.

- 60% of adolescents in treatment for substance abuse have LD[7]
- 35% of students identified with LD drop out of high school.[8]
- 60% of adults with severe literacy problems have undetected or untreated LD[9]
- 62% of LD students were unemployed one year after graduating[10]
- 63% of homeless and runaway kids have LD[11]

Other statistics of interest which may affect but are not system-related costs include:

- 50% of all students in special education in public schools have LD[12]
- 50% of females with LD will be mothers (many of them single) within three to five years of leaving school[13]
- LD and substance abuse are the most common impediments to keeping welfare clients from becoming and remaining employed[14]

These numbers still do not provide a clear picture of the cost society bears by not appropriately dealing with criminal defendants who suffer from learning disabilities and/or ADD. For instance, how many new police officers are hired, trained, and paid to protect us from reoffenders? How many new jail facilities need to be built to house those still coming through the system? How much money has been spent to treat alcoholic and chemically addicted individuals with learning disabilities and/or ADD? And how much of that money was wasted when appropriate accommodations were not made for these individuals by the treatment agencies? Finally, how can we possibly calculate the cost of the lost potential of these children? If nothing else, how much has our nation lost in tax revenues for those incarcerated or underemployed?

Clearly, the impacts and potential impacts of these statistics should cause us all to pause and consider how we should proceed. If there is an alternative to simple incarceration of juveniles or adults for criminal activity which may be linked to LD, then, for no other reason than the cost saving alone, we should examine it closely.

Multi-System Failure

For those children and adults who have undiagnosed LD, there has been, many times, a multi-system failure as they find themselves traveling through the criminal justice system. It may begin with the failure of the parents themselves. I have observed too many parents enter into a state of denial of any problems to protect their own ego. They are simply unwilling or unable to admit that their child may suffer from a learning disability. Of course, those children have to suffer from the size of their parents' ego. Many parents do not know of or are not capable of demanding appropriate services for their children. They may be unaware of the legal responsibility of the schools to help their children. Even worse, when told that no services are available, they accept that negative response as appropriate.

Those parents who know what resources their children are entitled to have just begun their fight. In this period of declining resources, schools may not be willing to provide resources without a battle for each one. Their ability to outlast the parent is much greater than the parent's ability to outlast the bureaucracy. At some point in the endless battle, they give up. Finally, worst of all is the parent who simply doesn't care. Their children may begin the downhill slide into criminal activity at an early age.

The schools also bear their burden of responsibility for this multi-system failure. There is constant competition for declining funds. The cost to assist the learning disabled student exceeds the extra funds that are provided for that task. There exists a financial disincentive to help these students who need the most help. Too often, the best teachers are given to honor students and the learning-disabled student is given the teacher's assistant. Yet these learning-disabled students need the best, not just those who might be available. Individual teachers with too many students and too little support must make priority choices as to where their time is spent. The learning-disabled student whose time demands may be greater than others falls to the bottom of the priority list. Sometimes, the simplest accommodations may seem like huge workload increases to the already overburdened teacher.

But without question, the road leading our children into the criminal justice system begins with the school's failure to recognize, provide accommodations for, and give sufficient resources to the learning-disabled child. For every child who is allowed to fall through the cracks, additional resources that were destined for schools now must be diverted to the criminal justice system.

The criminal justice system is mostly ignorant of this issue. Not because the judges, probation officers, or other participants have negative feelings about this issue or individuals suffering from learning-disabilities, but rather because they simply have had no exposure to or reason to know how these issues affect their lives. Without question, there is a failure to recognize the learning-disabled offender on the part of my fellow jurist. Most judges do not see someone who fails to follow their orders as an individual with a sequencing problem but rather as an individual with an attitude. They may not understand that a young person's inability to finish tasks may be from an inability to focus rather than a lack of desire. A judge may believe that a young man earned the jail time given him when in fact he was simply unable to do that which is so easy for most of us.

Given these facts, we still fail to educate our judges and probation staffs as to the effects of learning disabilities. We fail to provide treatment and education alternatives to those who suffer from learning-disabilities and/or ADD. We shake our heads in surprise when they reoffend. Yet we continue to deal with them as we always have. It has been said that insanity is doing the same thing over and over and expecting a different result. We look down on those learning-disabled offenders as simply not learning from their mistakes. Unfortunately, it is we who are not learning from our mistakes to the detriment of those we judge.

I find it most interesting that well-educated people in the criminal justice system, including judges, lawyers, probation officers, and treatment providers, do not understand the connection between failed substance abuse treatment and learning disabilities and/or ADD. We refer individuals to outstanding treatment agencies to become clean and sober. Their treatment consists of much reading and writing in noisy and busy rooms filled with many people. When the offender fails treatment because their disabilities have not been accommodated, we draw unreasonable and incorrect conclusions as to that individual. Then while basking in our own self-enlightenment, we order these offenders to jail for their supposed failure to benefit from our wisdom when in truth it is our own failure that has assured their continued failure.

Too often, we observe behavior which we believe to be intentional, when in actuality, it is not only not intentional, but not even realized or understood to be inappropriate. For those of us who can read social cues easily, it is difficult to understand why others simply are unable to do so. When we demand a learning-disabled person read social cues correctly and respond appropriately, we have crossed a line unintentionally. I am sure we would not do the equivalent by demanding that a man confined to a wheelchair get up and walk. Yet, we, in our ignorance, do so to the learning-disabled individual all too often.

There are several theories about the links between learning disabilities and juvenile delinquency.[15] The first theory states that a learning-disabled person's very characteristics make him more susceptible to committing a crime. These characteristic would include among others impulsivity, suggestibility, and poor social perception skills. An example of the second theory, school failure theory, is the young person who looks for acceptance in a gang. This individual who has failed and been failed by school looks for acceptance in other areas. Furthermore, those who need acceptance are easy marks for those involved in criminal activity. The third theory holds that the criminal justice system treats a learning-disabled individual differently once he is in contact with the system. An example would be the person's inappropriate responses to an officer which result in getting him into the system and inappropriate responses to a judge which keeps him there.

It is important to understand why traditional approaches have difficulty in helping the learning-disabled offender. Most treatment professionals and providers do not recognize the high incidence of learning disabilities and ADD when treating multi-problem young people who exhibit high profiles in juvenile delinquency crime and/or violence. When traditional methods of educational services, counseling, and chemical dependency treatment have been used for youth, most of it is in the form of written materials. One must have, and the learning-disabled young person probably does not have, the ability to either take in, remember, store, process, or recall information. Because of this, failure is virtually guaranteed. Depending on the disability, traditional intervention and counseling has little or no merit. For example, a person with an audio processing problem will have difficulty responding to verbal counseling. It would be very much like speaking more loudly to a profoundly deaf person.

Where Do We Go from Here?

The picture I have painted for you is not a pretty one. However, I do believe that it is accurate. That does not mean there is no hope. For that hope rests with you. It rests with each of us: our creativity, determination, and compassion for these young people. Each of us has within us the ability to search for that new idea—that new concept—or that new means of looking at an old problem which may give us a new solution. I have always tried to hold myself to that standard raised by Robert Kennedy so long ago when he said: "Some men see things as they are and wonder why. I dream things that never were and say why not." That is our challenge today.

I would like to offer you some suggestions on how you can affect the criminal justice system in your area when confronted with learning-disabled young people. First and foremost, you need to begin to educate your judges. It has been my ob-

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servation that most judges want to do the very best job they can with the heavy responsibilities they have been entrusted with.

Your approach to your judges can be multi-faceted. Most judges attend educational conferences. Find the organizers of these conferences and push to have programs explaining these issues become part of judicial conferences. I have done this twice in the State of Washington at the request of the administrative arm of the Supreme Court. The first time, an associate and I gave each judge a nonsensical test to complete. While they were attempting to do so, we played loud music and talked loudly back and forth. At the conclusion of the test, I berated a friend of mine for being so stupid for not completing such a simple test. This loud and public humiliation because he could not complete such a simple test was presented to the judges as an example of how it feels to be learning disabled. The second training session occurred last May. I used the F.A.T. City tape to show judges how it feels to suffer from these disabilities. You could see the lights of understanding go on as each judge mentally adapted it to his or her courtroom.

Through cases coming before the judge, you can make sure that the judge is made aware of the special circumstances of the young person. Do not be afraid to advocate for the learning-disabled youth. If you do not, who will? Finally, approach these judges directly and individually. Most judges are willing to learn new ways of addressing difficult problems. When doing so, make sure you are to the point and ready to support your request or training. Judges have many people competing for their time—do not waste it.

Another integral part of the court system are the probation officers. Their recommendations may make or break the path of a young person as they come before a judge. Many times the judges rely on their expertise in handling issues such as learning disabilities. These individuals have professional education requirements also and should be exposed to these issues many times. Like judges, you should not hesitate to advocate for the LD young person in individual cases. You can provide the probation officer not only with information about the offender, but training on the issue itself. Do not hesitate to approach them directly.

Do not forget the people who come before the judges most often—the lawyers. They too have continuing legal education requirements. Educate both the prosecutors and the defense attorneys in much the same way as you do the judges. As they become more knowledgeable, they will help you reach the judges. As with others in the system, approach them directly in individual cases to advocate once again for the LD young person.

Another method by which you may become very effective is by establishing your own program for those suffering from learning disabilities. I would like to take this opportunity to discuss the program I started in conjunction with the Learning Disabilities Association of Washington (LDA).

Lifeskills Program

Because I have two learning-disabled children, I watched with great concern as their frustration in doing very simple tasks would boil over. Their reactions to these problems went far beyond what a normal reaction would be. I also saw them being unable to follow two or three instructions. This problem in sequencing left me frustrated at their inability to complete their assigned tasks. As time passed, I was able

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to gather more information and began to understand what was confronting me. However, this remained a part of my personal life and was, I thought, not connected to my professional life.

That view changed one day when I heard a case involving an individual I suspected and later learned to be learning disabled. This young man had been stopped by a police officer on a minimal traffic infraction. He became very upset and frustrated as the officer gave him a ticket. His choice of words was not the best and soon he became involved in a fight with the officer. I found him not guilty of the traffic matter but did find him guilty of the assault on the officer. Because his frustration level seemed so out of context for the situation, it reminded me of certain actions by my sons. I asked the young man if he had learning disabilities and he nodded yes. I asked his mother to come forward and asked her the same question. She started to cry and through her tears indicated that I was the first person who cared enough to ask.

I realized that I had stumbled across something standing right in front of me. I wondered how many times I would have to be hit with a baseball bat before I recognized the obvious. I decided that it was important to determine how widespread this might be and if we should take special care to address it. I contacted LDA (Learning Disabilities Association of Washington) and arranged for a short six-week period to screen all individuals pleading or found guilty in my court for learning disabilities. While we did not complete a formal evaluation, we did determine how many offenders needed an in-depth evaluation for learning disabilities. At the conclusion of the six-week period, our statistics showed that 37 percent of the offenders tested needed such an evaluation.

Those results convinced me that I needed to refer these individuals for appropriate treatment and/or education. Much to my surprise, there were no such programs available anywhere. I then asked LDA to establish in conjunction with my court our own program. Over the next year or so, that is exactly what we did. It became the basis for a doctoral dissertation. Our Lifeskills program has been in operation since 1989.

We have tried a variety of ways to operate the program in a cooperative and financially feasible method with LDA. At this time, all defendants placed on active probation by any judge in my court are given a quick screening involving five questions asked by a probation officer who has received training from LDA. If the defendant's answers are an appropriate triggering response, they are referred directly to LDA for an interview. To avoid having the judge become involved in each case, we have directed that this referral and completion of the program, if appropriate, is a part of the rules and regulations of probation. If the offender either fails to appear for his interview or to complete the program if he is required to attend, he is ordered back into court to explain his actions and face possible sanctions.

Once referred to LDA, each individual is interviewed to establish if learning disabilities and/or ADD is a potential problem. This is not a formal evaluation, for that would be prohibitively expensive. LDA has found that their one-on-one interview can suffice in determining whether the individual is appropriate for the Lifeskills program. If appropriate, the offender then enters a fourteen-week program designed to help them avoid future contact with the criminal justice system.

This program was first funded by United Way and LDA. Following that initial period, LDA went directly to the County Council for funds to continue the program. There was no input from the courts in requesting funding for this program. After funding it for two years, the county established a direct line item in the court's budget. All of that was done without any request by the court. LDA convinced the county that it was in their best financial interest to do so.

The results of this program have been most promising. No claims can be made about the research or statistical significance of the data since the isolation of variables and matching of experimental and control groups necessary for a valid research study were not done. Our recidivism studies do provide us with an insight into the success of the program. For those offenders who do not attend the program, the reoffense rate is 68 percent. For those who complete part but not all of the program, the rate is 45 percent. For those offenders who complete the entire program, the rate drops to 29 percent. The reduction in recidivism is striking.

These results prompted King County to contract with LDA for $240,000 over three years to adapt our program for use with juveniles. That program, the Adolescent Lifeskills program, is now in operation as we speak.

There are many reasons why this program is successful. First, the judges in my court are committed to its success. We are in contact with LDA as needed to assure that court and probation staff cooperate fully. Second, the Lifeskills trainers are responsible for group leadership and facilitation. They work in teams of two and are the backbone behind the success of the program. Third, this program has the support of the head of our probation department. Fourth, the curriculum and trainers guide presents a foundation and structure from which to proceed in the leadership of the groups and for consistency in the program. Last, but not least, is the dedication, commitment, and follow-through of the Lifeskills program manager.

The content of the fourteen-week program which will be discussed in depth below is designed to assist the participants in reaching a new and different level of functioning. Because that occurs during the group meeting, the selection, training, and support of the trainers is critical to the program's success. LDA uses two trainers per group with an ideal blend being one male and one female. It is very helpful if one of the trainers suffers from a learning disability or ADD.

This sharing of like experiences has resulted in the increased level of empathy and understanding that is very difficult for a non ADD or learning-disabled person to understand. A trainer who is LD/ADD has the added benefit of being a positive role model and mentor for the group. Often it is the identification with the strength, achievement, determination, and intestinal fortitude of the leader that will give the group members the inner strength they need to decide that they want to change their life and improve themselves.

For a person with a learning disability to make the frightening decision to "learn something new" requires a great deal of courage. The members of the Lifeskills groups have to find that faith, courage, and determination within themselves. It is the trainer who gives them the encouragement, helps them develop the desire, locate the inner strength, bear the pain, and make the change.

Any person selected as a trainer must go through the entire program. LDA has found that a trainer must have sensitivity, flexibility, and instructional talent. These are more important than formal education.

The ability to effectively implement the Lifeskills program is an absolute must in trainer qualifications. Other important factors to consider are:

- A knowledge and understanding of individuals with learning disabilities and ADD
- Excellent verbal skills for group training
- Excellent listening skills

- Interpersonal sensitivity, including empathy and warmth
- Ability to work under pressure
- Good in facilitating group interaction while keeping to the curriculum
- Good skills in information presentation and use of auditory, visual, and kinesthetic learning
- Ability to model and facilitate role plays
- Resourceful in addressing individual/group needs
- Ability to deal with group management problems effectively
- Enthusiastic
- Ability to present curriculum in concrete form
- Sensitivity in providing feedback to program clients

Adolescent Lifeskills Program

Our Adolescent Lifeskills program is the natural child of our adult program started in 1989. Fortunately, our county council felt strongly enough to support this program with the previously mentioned contract. The target group for this program are kids twelve to nineteen years of age. They are screened for learning disabilities and ADD. The established goal is to divert them from entering the juvenile justice system once again. The purpose of this program is to provide an "individualized" approach in teaching anger management, social skills, problem solving, decision making, and identity issues. The curriculum includes:

- Structured and repetitive learning strategies and skill practice
- Specific social skills instruction
- ABC's of anger management
- Problem solving and conflict resolution methods
- Peer pressure
- Building self-esteem
- Making smart choices
- Attitude
- Learning to monitor and control stress
- Who am I?
- Information on understanding and living with learning disabilities and/or ADD

The following chart provides a week by week description of the fourteen-week program. A complete description of this program including forms, training manuals, and trainers' notes are available from LDA of Washington. If you have any questions about this program, I urge you to contact Mr. Ron Hume, Executive Director, LDA of Washington at 206-882-0820.

Session	*Lifeskills*	*Anger Management Self-Identity Decision Making*	*Problem Solving*
1. Program Overview	Getting Acquainted	Program goals Five program components	Problem-solving skills introduction
	Rights/Responsibilities of the members	Skill building introduction	Self-identity introduction
	Your style	Anger management introduction	Dilemma introduction
2. Self-Talk	*New skill:* Expressing a complaint	ABC's of anger management	Self-talk in problem solving
	Role plays	Knowing when you are angry (cues)	Who are you?
	Skill practice during the week	What to do when you are angry (reducers)	Learning styles
3. Knowing Yourself	*Review:* Expressing a complaint	*Review:* ABC's Triggers: internal or external	Let your emotions help you solve problems
	New skill: Knowing your own feelings	Triggers/Cues	Accepting your feelings Self-esteem
	Role plays	Reducers	Dilemma: most important values
4. Understanding Others	*Review:* Knowing your own feelings	*Review:* ABC's	Handling grief and loss
	New Skill: Responding to the feelings of others Role plays	Keeping your cool with reminders Feelings that come before anger	Healthy love relationships Dilemma: Fall-out shelter
5. Stress	*Review:* Responding to the feelings of others	*Review:* ABC's Rate your tension	How to de-stress An obstacle to problem solving
			Effect of stress/anger on your body-feelings-mind
	New skill: Preparing for a stressful conversation	Stressful situations	Values
	Role plays	When do you get stressed or angry	Dilemma: kidney transplant
6. Angry People	*Review:* Preparing for a stressful conversation	*Review:* ABC's/Stress monitoring Thinking ahead	Coping with stress Making plans to reduce stress
	New skills: Responding to anger/accusations		Healthy anger Dilemma: alligator river
	Role play		

7. Success with Learning Disabilities I	*Review:* Responding to anger accusations Famous people with LD/ADD What are learning disabilities?	Causes How we take in and use information Attention problems	Learning styles Inventory of your strengths
8. Success with Learning Disabilities II	Using your strengths Compensating for balance weaknesses Success with learning disabilities	Anger and learning disabilities Substance abuse and learning disabilities	Your plan for success Suggested reading Community resources
9. Getting Smart	*Review:* Learning disabilities *New skill:* Negotiating Role plays	*Review:* ABC's stress monitoring Individual differences in anger arousal/aggressive behavior	Five greatest things about me Nine dot The mind Peer pressure Dilemma: passenger ship
10. Comfort Zones	*Review:* Negotiating *New skill:* Keeping out of fights Role plays	*Review:* ABC's Self-evaluation Self-reward Self-coaching	Belief system Making smart choices Roles Dilemma: using in treatment
11. Moving Your Power Inward	*Review:* Keeping out of fights *New skill:* Standing up for your rights Role plays	*Review:* ABC's What makes you angry? Who decides your mood?	Which lady do you see? More on beliefs Boundaries Dilemma: the used car
12. Putting Your Power to use	*Review:* Standing up for your rights *New skill:* Active listening Role plays	*Review:* ABC's The differences between assertiveness and aggressiveness	Self-talk for control Healthy recreation Making a plan for recreation Assertiveness Dilemma: perjury
13. You Make the Difference	*Review:* Active listening *New skill:* Learning from experience Role plays	*Review:* ABC's *Review:* Rate your tension	Setting yourself up to Attitude Positive self-talk Spirituality Dilemma: the lifeboat
14. Setting Yourself Up to Win	*Review:* Learning from experience Your style Rating the program	Your suggestions Transitions	Making a plan Reaching a goal Self-concept

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Future Steps

I have described to you where we have come from and where we are today. Even more critical is where we go tomorrow. We are continuing to explore the possibilities with great anticipation for there is much to be done. Recently we submitted a grant application to the State Justice Institute for $150,000. If that grant is awarded, we will establish adult and youth Lifeskills programs in the juvenile and adult courts in Waco, Texas, and the Bay Area in California. We are working with local groups who are excited to bring these programs to their area. This will be a good test to determine if our recidivism reduction rate is replicable in those locations.

In my court, we have a mentor program. This is a volunteer-based program in which individuals in the community undergo training in a variety of areas concerning defendants coming through my court. These individuals are systematically assigned to young adults who need assistance and mentoring in how to survive and thrive in these difficult times. These mentors meet with their clients once a week and help them navigate and develop skills to meet today's obligations. We are in the process of training specific mentors in LD/ADD issues. They will then be assigned to those individuals completing the Lifeskills program who are in need of further support. This may be one more method of support that will assist those completing our program from reentering the criminal justice system.

Our current adolescent program is designed to assist those teenagers who have come in contact with the juvenile justice system. We are exploring the possibility of enlarging this base to reach those kids who may be on their way to the juvenile system, but have not yet crossed the line. LDA is cooperating with our local school district to provide an opportunity for those young people identified by their schools as potential benefactors of this program to attend the program. Why wait for them to break a law before giving them the skills to avoid that result?

Since learning disabilities run in families, we are looking at the siblings of those attending our program as natural attendees. Once again, we are attempting to give the parents and the child a chance to avoid the criminal justice system.

Summary

We have just begun to take the necessary steps to appropriately address the issues of how best to react to individuals coming through the criminal justice system who suffer from LD and/or ADD. As we begin this work, it is critical for us to not lose sight of certain truths. First, the cost to reach, accommodate, and educate the LD/ADD child is great. The cost to fail to do so is far greater. Second, there are well-meaning individuals, organizations, and bureaucracies that will place roadblocks in your path as you try to reach for meaningful solutions. We must find ways to circumvent those roadblocks and not allow the natural resistance to new and innovative ideas, concepts, and programs to overcome their implementation. We must not allow the everyday pressures of life to cause us to lose our natural creative process. For it is there that we can find answers to today's problems and tomorrow's questions. Each of us has been given certain gifts of intelligence, determination, and character. We must not let these gifts lie dormant when so many are in need of the benefit of their use.

Furthermore, we must never lose sight of what we stand to lose if we fail to act. It is the potential of each and every child that goes untapped forever, trapped within that person, unable to burst free. An accommodation not made is brilliant thought gone unheard. My son, when in the eighth grade, was allowed to dictate answers to homework questions. The question was how would school be different in the year 2050. After stating that the clothes they would wear and the food they would eat would be different, he proceeded to state matter-of-factly that there would be no school in the year 2050. Not understanding, I asked why. He indicated that knowledge would be implanted at birth and school would not be necessary. I knew right then that we were on different conceptual levels. I have pondered the potential truth of that accommodated statement and its meaning for some time.

I have heard people say that it is not worth our time and effort to do so much for these young people. But, again, I see the potential of what we may lose. Let me tell you the story of one individual. A young man of seventeen lived at home with two sisters and an alcoholic mother. The father, also alcoholic, lived nearby. As the insanity of the alcoholic home grew, this young man decided that the only way to resolve this problem was to rid his mother of the source of her alcoholism. That was her boyfriend. This young man along with a friend planned the murder of the boyfriend. However, this plan was never carried out. We do know, however, that if the plan had been carried out, this young man never would have graduated from high school; never would have received a scholarship to go to college; would never have gone to law school; and most certainly would never have become a judge and had the opportunity to speak with you today.

It is because of my concern for these young children that I share this story with you. I hope that you reach out and touch someone. There is so much work to be done, and there are so many suffering silently and alone. We can make a difference, you and I. Rarely do we have the opportunity to so readily affect the lives of others.

So that is our challenge. Our ability to create and move forward must continually be challenged. If we fail to dream, we merely tie ourselves to the past. That is not good enough. I hope you will accept that challenge. Our failure to dream affects not only the children of today, but tomorrow's child. You see, they await our work today. We are their only hope. They are not afraid that we will try and fail, but they are desperately afraid that we will simply fail to try. These children have been too long like ships lost at sea—it is time we bring them back to shore.

As you leave today, I ask that you make one commitment: that you leave today with a firm determination that these children will not be left alone to wither on the vine. That these budding young flowers, in need of gentle care and nurturing will be allowed to blossom into the beauty of their potential. To stifle the growth of this generation or the next is a tragedy of immense proportions. This child so soft and warm, who gives love without asking for something in return, whose potential is only a dream in God's eye may become a poet unequaled in the use of verse, a sculptor whose chisel makes us stand in awe, a doctor who finds a cure for a disease not yet discovered, or a mom or dad whose love and care may develop a man or woman who brings peace to this troubled planet.

I have heard it said that there are no heroes anymore. I have heroes today. It is those children suffering from LD and/or ADD. And it is especially my two children. For they go to school every day knowing they are going to fail. They exercise more courage in a week than I have in my lifetime.

As we ponder these questions we have discussed today and this week, I think we need a very special anger. One that burns brightly and deeply within us. An eternal flame, a beacon for those still suffering. A light for those still ignorant. A symbol of hope for those children. For then they shall know that we did not abandon them. Let it be forever understood, that we never shall.

On behalf of those children and on behalf of tomorrow's child, for all the work you have done and will do, I thank you.

Notes

1 National Center for State Courts and the Educational Testing Service 1977.

2 National Audit Literacy and Learning Disability Center.

3 National Longitudinal Transition Study (Wagner 1991).

4 Washington Council on Crime and Delinquency.

5 Washington State Department of Corrections for 1996.

6 1997 King County Jail Fees for Contracting Cities.

7 Hazelden Foundation, Minnesota 1992.

8 National Longitudinal Transition Study (Wagner 1991).

9 National Adult Literacy and Learning Disabilities Center 1994.

10 National Longitudinal Transition Study (Wagner 1991).

11 Doctoral Dissertation research conducted in conjunction with Youth Care, Inc. Seattle, Washington.

12 U.S. Department of Education 1992.

13 National Longitudinal Transition Study (Wagner 1991).

14 Office of the Inspector General on "Functional Impairments of AFDC Clients", 1992.

15 Eggleston, Carolyn, Ph.D., "Learning Disability and the Justice System," Their World, 1995.

CHAPTER 12

Improving Teacher Education in Collaboration with Schools

Part 1

* * *

JEFFREY GORRELL, PH.D.

> *If it isn't used, it isn't learned.*
>
> —Aleksandr Luria

There are many ways to think about reforming teacher education. Critics of teacher education have suggested the following: making dramatic changes in the curriculum; increasing (and improving) field experiences; employing master teachers as the primary instructors of new teachers; and creating more alternative routes to becoming certified as a teacher. No matter how good those suggestions are, though, no serious changes in teacher education will occur unless schools of education and public school teachers communicate more meaningfully about the needs of all children and about how teacher education can help prepare teachers to address those needs.

As a teacher educator for twenty-two years, I am likely to be seen as one who represents the established practices of teacher education throughout the country, and to some degree that may be true, for I do believe that, at least in the best teacher-education programs, we are preparing teachers well. However, I do not believe that we are doing anything like the best we can do. To do better we will need to drop our defensiveness against ideas from outside the university, listen well to teachers and administrators, and confront what it means to be a child in school in the 1990s. We also need to learn what it means to be a teacher who is confronting the many different needs of children. In response, teachers need to understand more about the culture and concerns of teacher education. The two groups (teachers and teacher educators) have overlapping, yet different experiences related to school, creating two cultures that communicate infrequently and possibly badly. At times it is as if schools and colleges of education are an alien civilization.

Teacher Educators as Aliens in the Schools

Science fiction movies present encounters between Earth and alien life forms in a variety of ways that can be understood in terms of cross-cultural contacts—sometimes in terms of the aliens as threats (e.g., *The Thing*) and sometimes as benefactors (e.g., *The Day the Earth Stood Still*). Given the cultural differences and potentials for positive and negative interactions between teachers and teacher educators, interactions between teacher educators (aliens) and teachers in the schools (humans) could be represented by certain science fiction movies. The following movies are intended as a means of characterizing some prevalent views of the interactions between teacher educators and teachers.

Benign Intervention: In *Close Encounters of the Third Kind*, humans (teachers) encounter somewhat mysterious, powerful, and benign aliens (teacher educators) who have the capacity to help them solve their problems through their advanced technology and knowledge.

Adjustment to a New Culture: In *Starman*, an alien (teacher educators) comes to earth (school), assumes the aspect of a human (teacher) and learns more about what it is like to be human (a teacher) than humans learn from him.

Difficulties in Communication: Ghost tells the story of a person (teacher) who passes over to another plane of existence (becomes a teacher educator) and is no longer able to communicate with those who haven't (teachers).

Working from Within: In *Invasion of the Body Snatchers*, pod people (teacher educators) one-by-one and secretly (through the attainment advanced degrees in schools of education) replace real people (teachers) but lack the human traits (feelings) of the ones they replace.

Beating Back the Invaders: Finally, as depicted in *Independence Day*, aliens (teacher educators) who try to take over Earth (schools) with more advanced technology are beaten back by resourceful, brave Earthlings (teachers) who use their technology against them.

A Sympathetic Understanding of the Teacher Educator

Tensions between teachers and teacher educators sometimes surface because they have different goals, needs, and expectations. As the reference to science fiction movies indicate, there are several ways in which we are likely to misunderstand each other. Effectively, we experience cultural differences. Even though we typically have the same concerns for improving education for all children, we see different routes to that goal and often use quite different means in trying to achieve it.

It is tempting to think of teacher educators as those who could not make it in the classroom, so they fled to the presumed safety and comforts of higher education. However, probably no more of those actually exist in teacher education programs than exist among the ranks of sellers of insurance, cars, homes, or pyramid schemes.

When we look closely at teacher educators, we see that the movement from the classroom to the university setting and teacher education programs is often motivated by other needs (certainly not money, for salaries in universities often are less than those of experienced teachers in the public schools). In addition to two common reasons for becoming a teacher educator that I will describe below, I am not discounting the possibility that some of us simply may have misinformed beliefs about the glories of the profession, beliefs that may be quickly dashed once the presumed thrill of being called "professor" wears off.

A belief that they can serve the profession best by training teachers based upon their own teaching experiences. Many of the best teacher educators were expert teachers in public schools and, over the years, developed an interest in helping prepare other teachers to succeed in ways similar to how they succeeded. This motive appears to be particularly strong among new faculty in colleges of education. In the 1990s, we are attracting professors to schools and colleges of education who want to maintain very close ties with public school teachers and with students, to make a difference in schools even from the more rarified heights of academe. These faculty are infusing colleges and schools of education with well-educated, capable, and dedicated individuals who are helping to change the culture of higher education and to redirect our attentions to meaningful, supportive interactions in the schools.

Attraction to the intellectual traditions of universities. Universities attract many individuals who enjoy the world of ideas and scholarship, who find satisfaction in exploring theory and in conducting research—not only in the sciences and the humanities, but also in teacher education. These people may come from all other walks of life, but they tend to gravitate toward university settings that encourage scholarly inquiry, reflection, and communication. Thus, those who come to teacher education may be different (not better) in some meaningful ways from those who find more satisfaction in interactions in the public school classroom. Their orientation toward formal inquiry and theory, however, may make them appear to be uninterested in the world of public education and unwilling to participate in that world.

Some Current Attempts to Bridge the Two Cultures In recent years, and especially since the 1985 publication of *A Nation at Risk*, teacher education has confronted its own limitations and its problems of being too removed from practice in the schools. This awareness of a disconnection between schools of education and public schools has introduced such concepts as *simultaneous renewal* to discussions of improving education for all. The principle of simultaneous renewal states that both teacher education and K–12 education need to be revitalized at the same time; we cannot expect one to change without the other, nor can we expect one to change before the other does.

Another approach to improving communication across the two cultures are *professional development schools* (PDS) that connect the world of practice with universities for the improvement of teachers' professional development. The PDS model emphasizes the need for teaching and learning for understanding at all levels of schooling; creating a learning community that incorporates and extends the best of both cultures; continuing learning by teachers, teacher educators, and administrators; thoughtful long-term inquiry into the improvement of teaching and learning; and inventing a new institution, the Professional Development School, which will serve the interests of schools, teachers, pre-service teachers, educational researchers, and educational reformers.

In the last ten years, and not coincidental to the growth of professional development schools, many educational researchers have enlarged their own perspectives, moving away from the traditional notions of scholarly inquiry that originates and culminates only in the university. Educational researchers are moving away from conceptions of research as being best conducted in carefully controlled laboratory or similar settings, and now recognize that research needs to be grounded much more firmly in practice and in the natural settings of schools. We have been influenced by a growth in anthropological and sociological research traditions which ground research in the real-world setting and which take into account the needs of the persons being studied. Sociocultural perspectives are replacing or enlarging

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psychological perspectives, so that we focus more upon individuals as learning in the social context and less upon the learner as one who only learns in isolated settings and in isolated fragments. This attention to the learner in the broadest social and personal context has led us also to think of the classroom and even the whole school as an evolving community of learners. Therefore, collaborative models of educational research have grown in sophistication and influence, leading to perceptions of the best role that researchers can play as one of supporting and enlarging the capacity of teachers in the schools to study issues that are meaningful to them.

Interest in the professional development of teachers has accelerated in recent years as schools become increasingly aware of the powerful influences that teachers have upon learners and of the range of professional roles that teachers assume in any given week. Studies of teacher professional development have centered upon teachers' changing concerns, levels of stress encountered, development of a professional identity, reflective practice, teacher efficacy, and so forth. These issues and many others highlight the complex and, often, confusing world of the elementary and secondary teacher in the United States.

Specific Projects that Show Promise

In the following paragraphs, I briefly describe a few promising projects that illustrate the types of changes that are happening in schools and colleges of education as we attempt to improve our communication with schools and to bring our two cultures more closely together.

1. **Concentrated professional development opportunities.**
   The National Education Association recently announced its partnership with Stetson University Center at the Celebration Teaching Academy to create a setting for continuous growth and professional development of teachers. This teaching academy is connected with the Celebration School in Celebration, Florida, a model community near Orlando built by the Disney Development Corporation. The school embodies many of the most successful and advanced approaches to education in the country, and the teaching academy, in partnership with various universities throughout the country, represents best practice in teaching and the best thinking about the important relationships among schools, universities, professional organizations, and communities. The Teaching Academy is evolving a systematic plan for career-long teacher development that is likely to influence schools and universities across the country to model their own professional relationships accordingly.

   Teachers and other education professionals who come to the Teaching Academy will find more than workshops that reveal best practice and they will find more than a forum for their own successes. They will be provided with a professionally enhancing experience that goes beyond such activities. They will be able to see themselves as being connected to the larger issues and concerns of American education, to see themselves as developing professionals with needs that vary with experience and setting, to reflect upon their practice and to examine the basis of it in light of the increasingly complex demands placed upon them. They will be introduced to professionals from all levels of education and will match their experiences against those of others, and, as potentially the most rewarding professional activity, they will participate in the debates and the efforts that accomplish school reform locally and nationally.

2. **Completely rethinking master's degrees.**
   A new version of the master's degree in education is being developed at the University of North Carolina at Chapel Hill. Faculty there are building a new conception of what should be taught in advanced degrees through collaboration with local and regional school systems to address directly the teachers' needs for professional growth, and not the needs as typically formulated by academic faculty steeped in the traditions of trying to turn out more academics. Emphasis is on active learning processes (not didactic instruction) and on all teachers studying their own teaching practices. This nascent program is breaking new ground in the relationships between teacher educators and experienced teachers because it operates from the principle that professionals know best what kinds of knowledge they need to acquire and what that knowledge will mean to them.
3. **Creating schools together.**
   Barry University in Miami Shores, Florida, has organized faculty, university administration, community leaders, representatives from business, teachers, and public school personnel into a collaboration that has created a new school around the concept of a Cooperative Learning Community. This school will be housed on university grounds and will integrate teacher education expertise with teachers' expertise in serving the needs of children. In this model of the relationship between university and schools, we see the admirable goals of serving the educational needs of the community and of linking the preparation of new teachers for that community through an equitable partnership where all participants have a significant voice in the school's success.
4. **Curriculum Review.**
   Auburn University's College of Education has involved representatives from three local school systems in the continuous review of all teacher education programs for the last six years, thereby improving our understandings of the ways that these programs are seen in the schools and gaining invaluable advice in ways to improve the teacher education programs to better prepare teachers. The seminar addresses the areas of philosophy, goals, and objectives of the program; models on which the program is based; breadth and depth of knowledge represented in the program and its components; relationships among and between the general, specialty, and professional studies; qualifications of faculty involved in planning and delivery of the program; qualifications of students to be admitted to the program; and processes for evaluation of the program. Through these discussions, representatives of the local school systems gain insight into the nature of each program in the college, and faculty in the college benefit from concentrated discussion about the relationships between these programs and the schools.

A Final Thought

I believe that we are in a good position to bridge many of the cultural differences between teachers in the public schools and professors in teacher education. Certain changes in attitude and practice on the part of colleges and schools of education offer hope that understanding and collaboration will result in better education of teachers, better teaching in the schools, and better education for all children.

Part II

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ROBERT K. WIMPELBERG, PH.D.

I'm Bob Wimpelberg. My current guise is dean of the College of Education at the University of New Orleans. I say my current guise, because some people would say I'm not a legitimate person to talk about teacher education because it's not my background, my training, or my field. The first people to remind me of this are the people in the department of curriculum and instruction or the department of special education. But, I am particularly happy to be here, because I think that, maybe, as somebody from a background like mine, I can, in a sense, mediate with less turf control issues between the domains of teacher education. My background is educational administration.

I should tell you, I came to New Orleans for a job at Tulane University where, in a very small department, everybody did everything. So I was never just an administration person. In fact, when I left Tulane to come to the University of New Orleans, I was co-director of a program to prepare supervisors of early childhood special education. Only the supervision word fit me, my background, and my interests, which were primarily in the work of school principals and effective schooling.

But, as things happen, I moved from a faculty position at UNO into an associate deanship for graduate study and then into the deanship. I found in one way, that I could do what I had always longed to, which was to practice administration rather than profess administration. In fact, when I came to New Orleans, I had as many applications out for principalship as for jobs in higher ed. So vicariously one thing I've been able to do is to live through the work of principals in an original principal's center we had here and, now, through administration and higher education. Mind you, I don't pretend that my life is anything like a principal's, nor do most faculty pretend their lives are like the teachers' lives. But, it's a way I've found to kind of bridge a variety of worlds.

I am also on the board at CDL, and that's because a while ago Alice Thomas studied persistence. Those of you who know Alice Thomas, and if you've heard about her today in this fear that she'll take some of these ideas and want to turn them into programs, too, you'll appreciate it. You'll probably get a developing image of what Alice Thomas is all about, the Executive Director of the Center for Development and Learning, and that is she just won't leave something alone if she wants to make it happen.

So, she visited us at UNO; I would guess three times during the period of about a year and a half. "I'm starting this children's educational center," she began, then called the Louisiana Children's Research Center for Development and Learning. Eventually, fairly early on in my deanship, I said, "Well, let's at least go to lunch with the chair of our department of curriculum and instruction and our department of special education. Because what you're talking about sounds to me like it sort of belongs there." We went to lunch.

We were all fascinated by this state of the development of the programs CDL was doing at the time. But both chairs said it's not really their bailiwick, but it's betwixt and between.

And, so, out of that came a sense among all of us that it was something we wanted to be associated with and we wanted to learn more about, even though it didn't seem to fit the traditional identities of curriculum and instruction, or special education, and what those faculty and programs did. Our involvement from the beginning was to underwrite for credit the School's Attuned training program that Glenda Thorne then taught as an adjunct for us, and as a follow-up way of doing cases and developing casework. My intention, all of our intentions at the time, were related to "this is something that sounds vital, but we don't quite know what to do with it. . . . It's not a part of who we are or what we do, but it sounds like it should be, or it is so closely related to a variety of things that do. . . ." So, we've simply stayed involved. About a year ago, I was asked to join the board and I said, "Well, that will keep us involved more closely, and we can be of support." So that's my connection to CDL.

Had you asked me to talk after the last session yesterday, I would have said I'm not sure I'm going to come back today, because at Dr. Berman's session yesterday there were some people who got rather passionate about how what an awful job we're doing in teacher education . . . and how is it that anybody could finish an initial teaching certificate and not know at least some of this stuff. I said well, I'm sure that I want to come back and talk as their representative, even as a good apologist. First, if you'll excuse my being defensive when I get defensive. I probably will be, and I know there are university people in the audience. I invite you to be defensive with me. But what I want to do is to say that, first of all, picking up on what Jeff said, there is a lot of interest and sympathy. And maybe after Bob Brooks' presentation today, you'll have a lot of empathy for classroom teachers. For example, after each one of the sessions yesterday and today, I said, can we get the money to get Mel Levine to talk to the faculty, as Steve Ragan's probably thinking. Bring Bernice McCarthy out to do a workshop, bring Ned Hallowell. They would really resonate with those things.

I would like to suggest to you today something I will call an insider's view of teacher education from my perspective only: 1) It's going to be very much oriented towards Louisiana, and I think most of us here are from Louisiana. Who's not from Louisiana in this group? Okay, quite a few. You can translate, based on what you know about things going on in your state, and see if this makes any sense. I would like to speak as a dean just in my fifth year, so relatively new at this. But I've been involved at the state level for virtually all of my five years. So I've been involved in the politics of teacher education, if you want to call it that. As a student of administration, what I think has kept me going in the job is the chance to observe all those dynamics that I've been studying and teaching about, which is interpersonal relationships, interorganizational context, program change and institutional change. When everybody sort of knows it should be done or wants to do it, and everybody's got a different take on what "it" is and "it" doesn't happen. So, a set of observations I would make, for what they're worth, are our conditions inside higher education and in teacher education, including that whole system. If we can call it that, from state regulation down to teacher education that takes place in any one of the nineteen or so institutions in Louisiana that do it. I would make observations about the professional conditions, and what I will call the economic conditions and the political conditions.

Now, if I just do this and lay it out, it will sound like maybe a reasonable defense about why change can happen and hasn't happened. But I present it not for that reason. I present it to first test it against your realities and then to talk about what we do. If I'm at all right about any of this stuff, about sort of not fighting the enemy. If all of these points of resistance are the enemy to change, but understanding it, going with it, and making change happen as a teacher education community. And the teacher education community, I would say, is all of you, all of us, the BESE Board members. There's one here, not in our audience but here with us today, the folks who can make things happen for us. There are a lot of things that we need to be doing well about teacher education. I would say there are lot of things we would need to continue to do as well as we're doing them. And I think we're doing a lot of things very well. Were we to get into the positive side, I think there are a lot of very different things going on in higher education and teacher education.

When I talk about change, or the conditions that might resist the kind of change that I think we need to be looking at, I'm talking about to the degree it's not and infusing what this conference is about, what Plain Talk is about, into teacher education. Are we teasing it out to find out where it is, and is it systematic enough or putting it in there in some sense where it's not at all? And some of the flavor of the discussion yesterday was a rather passionate statement that teachers are coming into schools today saying either I never heard of this dyslexia, or I was discouraged from even thinking about diagnosing reading problems that are called dyslexia. You know, I had a certain ideology of reading. So, it's about dyslexia, it's about ADD, it's about teaching cycle aka 4MAT. It's about all of the things that are now bubbling to the surface, or in some cases, that are simmering, because they've been around for a good long while. It's about the old things and the newest brain research from Harvard. I'm sitting there saying we want teacher education to be at the cutting edge, and the people who are presenting it to us here are from Harvard Med School. Now how many med schools, I know LSU Med School has a lot of these sorts of things going on but they turn to a lot of the folks you're listening to for their national models of what's the most recent and what's current. So, the challenges to figure out what in this area of research and knowledge and applicability is in our teacher education programs; maybe more than that, when we know what's not there. What are the conditions we have to contend with to get that situation changed, okay?

We know that no matter what we do with teachers in preparation, a lot is going to affect them when they get into their first teaching context. So, I'm not going to talk today at all, and it would be a separate and interesting point of discussion, about what happens to teachers regardless of how they're prepared. One may encounter the context of the school they're working in. Chuck Achilles is talking about class size and, if you haven't heard him, I encourage you to listen to the latest Tennessee research on class size. All you have to do is say to teachers "class size" and that says a lot. School size, the space design for kids, is the ways schools are structured even when we have "school-based management." Dr. Brooks talked some about that. Who is involved and what really is their latitude? Whole systems converted into school site management when the models from the top are anything but . . . the bottom up. It's sort of commanded bottom-up pretense from top down, in some cases. But these are the conditions in which a lot of teachers work, and it's as

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Lilly Tomlin once said, "the more cynical I get the harder it is to keep up." And so we have to recognize the lives from the teachers, and not to mention the kinds of placements they get for the first time out, make it really difficult no matter what the teacher education preparation. The real thing that a lot of people don't realize is, in the Louisiana context, more new certificates are granted to folks who did their teacher preparation outside the State of Louisiana than from any one of our institutions. LSU produces the most teachers. Southeastern is high on the list each year. UNO is near the top or somewhere in the middle. But, if you take all of the institutions in McNeese, the regional places you would expect to have large numbers, none of them compares. None of them is within about 150–200 teachers each year of producing the single largest number of newly certified teachers in the state. So, an awful lot of the teachers we encounter here, Louisiana has essentially no association with, at the teacher education stage. That's just a fact. The largest growing area for teacher certification in this state is post-baccalaureate alternative certification. By definition, post-bac alternative certification is the quickest route you can get somebody who already has a bachelor's degree into the classroom as a certified teacher. Many of those folks are teaching in classrooms uncertified, as you also know, and then working on alternative certification while they teach. Well, it's hard to imagine, first of all, that much of a teacher education program will have an impact on those folks, because we are almost required by law. We get berated constantly by BESE board if we throw in an extra course or two, you know, sort of like, just the facts, please, to get them into the classroom and fully certified. These are kind of the background conditions.

But taking a look inside our shop, and as long as you promise not to tell, I get the UNO people to particularly take a note here, not to tell anybody I said these things. Here goes my sense of "who we are and what the sources of resistance to change or were they existing, what we all have to contend with." First of all, most of our programs have faculty trained in areas of specific expertise. That's simply the model. That's how we hire; we have positions open and courses that are taught from those positions, and so we look for the strongest specialist. What we're hearing today mostly comes from specialists who are not in education, or a lot of it. They are squarely medical, clinical, brain research specialists. Maybe they're educational psychologists, but often they're psychologists who specialize in whole realms of human development psychology, which doesn't necessarily fit into the backgrounds that we traditionally hire. Now you should be quick to say, well, why do you have to do that? Well, we've got to do it in part because one of our functions is to maintain the programs and the good things about them that are ongoing. It's a constraint. Our folks tend to be specialists. Second, what I worry about and we talk more and more about is, we may hire and have higher education folks who are extremely good at analytical, linear reasoning, even professing and purveying information as opposed to trying it out and applying it, being creative about it, even when they're caring. One other thing I think we need to be careful about and talk to each other about all the time is that we may have in higher education an extraordinarily large bunch of folks who are good at playing school the way it used to be played, and who were very successful at school that way. I mean why would you persist—my goodies were in school. I'll tell you, and most of my talking about this stuff today is sort of my own development, I found myself standing in the back of the room this morning saying I've got to go home and apologize to my daughter because of something I learned today. Last night I essentially told her that she wasn't picking up after herself, and I gave the distinct impression I thought it was volitional. I'm thinking today that given her situation and everything, she may just have forgotten . . . over and over again. So, part of it is if those of us in higher education are here in part because we were good at this thing called school as kids, and then we went into teaching. Dan Learney, the now retired sociologist of education points out that folks who are in education generally, whether they're teachers or higher ed folks, have been or are in occupations in which there is the longest socialization period of any occupation you can name. From age four or five, or even younger, we've been witnessing the models we became. I used to serve on the state selection committee for teachers of the year. After the last elementary teacher left the room out of eight, we'd look at each other and say, "If I hear one more story about when I was two I played school with dolls and my aunt was a teacher", I'm going to ___________. I mean, it was that consistent of a message. I have to tell you, we felt very good about it, but the message is very strong but also profound. It could well be that at age two, we were preparing for this occupation. Well, I would argue that we weren't preparing for it in the way that brain research is confronting us now. We're preparing for it the way we were good at it, maybe. And that was deferential students with adult controlling people, we gave them what they wanted, and they felt very good about it and gave us very strong strokes back. So, hey, go to college, what do you do. I mean I didn't go to college to become a teacher but, son of a gun, I came back to it, and now what am I doing? I'm getting into college education. To the extent that this is true, it's a powerful thing for us to overcome. In other words, there may be, just as there may be teachers among us (maybe not in this group so much) who will resist a lot of the things here and will say, "Yeah, we should do it that way" but, then, go back to old practices. We don't practice this sort of stuff, just like I didn't practice this sort of stuff that I knew before with my daughter. It could well be that we want to play school, and, you know, we have to always think about it and question it.

We're divided among our specialties and the larger you get as an institution, you know school or college of education, the less frequently you make arrangements for the special ed folks to talk to curriculum instruction folks, to talk to human performance and health promotion folks. Lord knows, with us, it goes like this: "Oh, that second floor," which is a dirty word, mostly, for the college office. But it also means the separation of one department from another. It's their turf. It's my turf. We've got that just as readily as anybody else. And it makes it difficult, you know, when people meet with Alice Thomas and say, that's not me, that's not me exactly. Well, you leave it in the middle. Let somebody else do something with it.

A lot of these new areas of learning come out of neuropsychology or educational psychology. Jeff and I have talked about this. Where educational psychology or any of this is situated matters a lot. At UNO, ed psych is taught in the Psych Department in the College of Sciences. Do we call them when we have faculty meetings about teacher ed programs? I don't think so. Do we even know who they are at any given time? Not always. Why? Because it's a "service set of courses in their department," and I appreciate that. That's the way it's structured, often taught by the newest kid on the block in an environment that's really much more experimentally oriented than clinically oriented. So the ed psych courses get given to those who either have nothing else to do or are willing to teach it.

We still are very much bound by courses owned by faculty not by programs. Accreditation comes around—it's a central course in our program, let's talk about how we do it. I don't do it that way, do you do it that way? Why don't you get together and use this opportunity to talk about what are the essential features? Me? You know, we get academic freedom, that magic term comes out, just pops right out.

academic freedom. And, there is this strong notion. Now, I'm not saying that's okay, it's the way it should be, it's a fact of life. All of these things on the professional side have to be overcome, economic conditions. State agencies that fund education as a professional area can define K–12 school systems or focus their funding on teachers, not on colleges of education. It's not at all unusual for us to go to the Board of Elementary and Secondary Education here in the State of Louisiana, or to be confronted by them, about something that's funded for teacher development and to hear, "Why should you get some of our funding from that pool of money when the Board of Regents for Higher Education has funds for that?" There is some legitimacy in that statement, but our response is, "Yes, there is funding that exists over there, but it's in competition from all functions at the university. And, if it comes down to things like technology, which happens to be real hot right now, guess what, science and engineering are on the inside of that tape before we even know to breathe about it. So, funding is a problem, that is to say, to make changes. Now, bring it back to the context. To make changes, which are going to cost money for us, to make these kinds of changes even if it's funding so we can take the time to study the changes is not a simple matter. Sources for funding is not a simple matter. There are many fewer normally appropriated dollars for higher education today than there were not very long ago, many fewer. At UNO, we have had fourteen budget cuts in sixteen years. We've gone from over 80 percent funding from the State through state appropriation to less than 20 percent. Less than 20 percent. Some of that is because we've gotten better at external fund raising and, so in the total mix of budgets, we've got more. Generally that's the naval architecture group and the engineering and sciences group. We fund new initiatives and alternative and interesting things to do out of "salary savings." Salary savings is code for a faculty member who left and wasn't replaced right away, so we could do something different with the money, at least for a little while.

Another condition for public education, which in this state if you disregard the out-of-state people getting certified, public institutions in Louisiana certified well over 90 percent of all the teachers, is that philanthropic organizations often give more money and more readily to private institutions than to public ones. It's not at all unusual for us to hear somebody say, "We'd love to support that but, you know, you should be getting that from your public sources." Translated back into my previous statement about our getting less money from state appropriations, that means *fund* means "fund that from tuition dollars," which also means do something, don't do something in order to do that. And, finally, when the state turns to us and, as they should, BESE, the State Department, NSF-funded programs, when they turn to us to do things newly and differently, they often want us to help with in-service education. And that's perfectly appropriate. But, again, the funding for that is not like the state says, We want you to do this, and here's the money to do it with. They say, wouldn't you like the opportunity to generate some more tuition dollars by doing these things, often that costs us more than the tuition return on it. The point I would make here is, to the degree we do that activity, we use our faculty expertise, resources, whatever, even adjunct expertise and resources to do the in-service, and that takes those resources away from thinking about teacher education as initial certification. And, I maybe didn't set the stage this way. I'm really concerned about our capturing these ideas and these notions in pre-service education. In the initial certification of teachers, it is obviously important to work with teachers already in the schools but I think our real challenge is to make sure that a lot of this knowledge and at least an orientation is in our pre-service programs.

The last set of conditions I would like to talk about are called flat-out political. Louisiana more than most states, but I think in all states, is what I would call a multi-policy based system. Policies governing teacher certification come, of course, from the Board of Elementary and Secondary Education. They adopt, set, advise, and kind of tinker with the teacher certification programs. But, it also comes from the board of higher education regents in this state. For example, the reason people have to take the national teacher exam as an entrance into a teacher education program and then finally to get their certificate derives from a requirement of the board of regents, the highest board for higher education, not the state board. Legislators like to either pass concurrent resolutions of the house and senate on something that should happen in education or even pass legislation related to teacher certification. And, so the state deans group at any given time is usually responding to some inquiry about what are we doing about this or that in education. I have to say, this is not totally fair but often enough we say, "Does anybody know where that came from, why Senator so and so introduced that bill?" Well, Senator so and so's neighbor's niece just started teaching and had difficulty in the class and came home one day and said . . . and quite often it's this simple . . . you know, I don't know why I had to take that course in history of education when I can't handle these kids. And, so then we'll get an inquiry, sometimes this literally, "Do you need that course in history?" (By the way, there's no required course in history. It's the introduction to education, which usually teaches about such things as what's the governing system, the finance system, and the background of professional teaching, where did American education come from, and what are the socioeconomic conditions that you're going to encounter in the schools. It's often, for most of us, a first opportunity to get kids out into classrooms because there's a week of the history of American education, we do battle all the time with that history course. In fact we've had words with each other, some of the deans and BESE board, about that history course. But, that's a source, that takes time and energy, and we have to explain that history course and why we can't do away with that course or whatever. But, it's because lots of folks can make education policy relative to certification. We need to understand that if we want to, for example, we shouldn't all change our programs individually, we should view it as a state certification issue to "get this stuff into our curriculum." That's one of the things we'll have to contend with.

There are active lobbies for some of the things we are required to do. Quick notion: elementary education in this state requires relatively few courses. It requires a total number of hours and most of them are grouped in hours. But there are specific requirements for a few specific courses, and, hoping not to step on anybody's toes, I'll tell you that they are. We are required to have everybody complete a certain number of hours in physical education, art, music, the history of Louisiana. But we're not specifically required to have any specific course in educational psychology, human development, or methods of teaching any of the other subject matter. Now they're listed as things we should do in a clump of hours but not a specific course in those things. I'm not arguing for specific courses in all of those things, or our programs would become twice as long as they are. I'm simply telling you though that where there are courses specified, they're in areas that you and I and the spirit of this conference might not choose to put our emphasis. It's not an argument against music or physical education. In fact, the speakers here have talked about those things, in an integrated way. But those are requirements and one of the reasons, as a new dean I said, well, why does this persist? And one of the responses is those areas have very strong lobbies. All it takes on a BESE board of 11 people is 6

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votes to veto a change that's being considered. And historically, we haven't tested it in the last few years but historically, those areas have been protected by one or another lobby group. That's a part of the political condition and I'd say, I'm going to give you some good news later on, which is that we're opening up the elementary certification program to look at it. We've said head-on to each other, we have to be ready for anybody coming out of the woodwork to "defend their two hours, or their three hours of whatever in the program."

The last thing I would mention on the political side is there is a climate of broad reform right now. I call it political because, in the same sense that there are lobbies out there, everybody wants certain things in the reform mix. For example, the state's thrust is not in this area generally; the state's thrust is in technology. And, if we're here today, we're going to be 75 million dollars dedicated to technology development, and teacher education programs need to be out front with technology. I could go back to the funding thing and say immediately some of us are more poorly equipped than some of the schools to teach technology, and one of the nice things about that is we do a lot of our teaching out in some of the schools. So our students can see beforehand what it looks like to have technology in the school setting. But we need much better labs. Our IBM lab has 386's that are not upgradable, twenty or thirty in the lab. Well, you know, you do what you can. You say, well doesn't the state or the university give you an equipment budget? Answer—no. So, to do those things we're going to have to have grants or find the money some other way. Part of this is the condition of poverty of the state of Louisiana. I know it's not the case everywhere, but we have to do creative things to upgrade these labs. Nevertheless, technology will be a major state point of investment in the reform movement. But there's also reform to get people ready for new assessment modes even though the stuff that continues to counter the old multiple-choice norm . . . criteria norm testing. To get to do more with alternative certification programs, that is, quicker programs, I would say at least once a semester I hear from a legislator or a BESE member saying, "Why don't you have an alternative quick program in this certificate area or that certificate area?" One of my constituents called and wanted it. Well, to the degree that we play those out is the degree to which we will have less contact with the teacher in making regardless of what we want to do with them. That's part of the politics of our system. Now, let me turn to the reason. I guess, I'd like for you to challenge some of the things that I've said, help me see what we can do on our end, but also help us in confronting those conditions. Let me tell you what I think are our opportunities.

Number one, for about a year now we've had a nice ongoing discussion between the state deans of education and BESE board, and we now have sort of an adjunct joint committee looking at changing teacher certification. Just last week, we agreed that we would start with elementary education. What we're hoping to do is to start as best we can with a clean slate and build from there. To the degree that you know somebody on the dean side or a BESE board member, or someone in the state department, administrative apparatus and can advocate for these kinds of things being put on the table. These kinds of things. That's a rather broad area, I'll admit from, you know, brain research to teachers' empathy for kids and building in the research base for that empathy and the notion of resilience. It's broad, very broad territory. But, I would say, you know, some of all of that having some presence in our program, this is the time we need that kind of advocacy, because technology will be there. What teachers and BESE board members often call classroom management perceived as a kind of negative control, most often, it will be on the table, okay? And

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you can count on those of us who are there speaking for these kinds of things. But all the help we can get to be sure that these issues are on the table will be very important.

Second, the CSPD, the special ed statewide group, has for at least two years now been advocating for an integration of special ed and regular education at state level. Through one vehicle called the university forum, but through sort of anybody who will listen, the notion about integrating special education and regular education is "mighten you guys teach together sometime, do you just do special ed in any given certificate as a stand-alone course on introduction to exceptional children. Why not the knowledge? (And I would say our special ed folks have more of this kind of background and knowledge than most of our regular special ed people because they're content specialists.) Why not integrate them into other courses? And, so there's a . . . it's a group that doesn't have authority to make something happen, but has a lot of persuasive power. So the degree to which we can begin to get our special ed and our curriculum and instruction folks talking, we've got an advocacy group. CDL, at least for Southeastern Louisiana, if not the world, and the development that this takes in the Center for Development and Learning is writing a curriculum for middle schools. I've already begun to talk to them about, as that's done, let's talk at least to us in Southeastern and the New Orleans area schools, about what we can do to capture and build that program and its learning into our teacher education programs. So, advocacy groups specific for learners, unique learners, an important advocacy group.

And, finally, to tell you a little about what's going on at UNO. I see I keep pointing to Southeastern. There's Steve Ragan and Beth Whittington here from Southeastern, and maybe from other universities represented, Bob Golding from the program at Tulane. What we're doing now, at least to start this and, to give you a sense of my kind of reaction to myself about all of these constraining conditions, is I think we plant seeds. We begin to talk and think in a way that's a little outside the traditions of our segmented departments. We have just in the last year created a teacher education council. Our assistant dean, Doris William Smith, is here who heads that council, and it has folks from all four departments on it. It's called the Teacher Education Council. I'm underneath in public, but I know there's got to be a person in curriculum and instruction saying, "What's he doing taking teacher education away from the department of curriculum and instruction?" And other people are saying, "It's about time." But, it will be our focal point for rethinking how we do start with elementary education, and these ideas will get infused for us in that kind of vehicle. Through the extent we can, we need to see where our other institutions like us, rather rigidly, traditionally segmented, and how can we integrate all the folks who . . . we said, wait a second, our physical education folks, health folks, know an awful lot about stuff that should be in the mainstream program, not just as physical education and health. One of the people on the committee is from the council education program, who is a specialist in group work. We're saying, the council of education people who just work at the masters and doctoral level with us can be talking to teachers about group work as a classroom management notion, right? So, that's one positive thing, and the most recent positive thing among others, in addition to talking CDL, is as of 10:00, the notion was born here that we should look to enough of the right faculty within the right combination of programs, to start a cohort. They'll love this back at the ranch. A cohort in a doctoral program on brain research in this sort of learning. I hope that may be with LSU Med Center and kind of anybody else who wants to be a part of it. And, there are people in this room who said, I'm in that cohort and I haven't even talked to anybody back on campus about this at all. But, one of the reasons that's exciting is it may go nowhere, it may last until tomorrow and that will be that. But, an awful lot of the change given the normal conditions and constraints has to be around ideas and then you get the right folks. If you've got the structure, it's something that's allowable within our academic structure, the structure to create it. So, that's my take, and on sharing with you the things I view as constraining us, they're not totally insurmountable, but I would just share with you sort of the Zen notion that if you know the enemy, you can go with the enemy. If that's the enemy, go with the enemy, move the enemy on the enemy's terms instead of butting heads with the enemy. Because if we got into an argument today, I tell you, you can go back to your schools and we can go back to ours, and life will go on and nothing will change. And, that's not the environment in which I think we're going to capture the energy and the enthusiasm of a meeting like this to make a difference.

CHAPTER 13

The Indispensable Role of Informed Parents

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ANNE FORD

Obstacles are those frightful things you see when you take your eyes off the goal.

—Henry Ford

My name is Anne Ford and I am the Chairman of the National Center for Learning Disabilities. However, I stand before you today not as a leader of a national organization, not as an advocate for the well-being of countless children, adolescents, and adults who struggle with learning disabilities each day, but as a parent . . . a parent who had to figure out which of the doctors was right, a parent who had to learn through trial and error how to select the proper educational setting for my daughter, and a parent whose hopes and dreams for my child are still evolving. Just as learning disabilities are lifelong, so too is the process through which individuals with learning disabilities and their families discover how best to become the best they can at finding just the right niche, and providing just the right kind of support . . . support and encouragement that is en-abling rather than dis-abling.

My story is perhaps not unlike yours, and I hope that by sharing some of what I have learned, I can help you in your efforts to be better advocates, better listeners, and better proponents of positive and meaningful change for our children and for the educational community in general.

> My evaluation of your daughter is complete, and I think that you'd better start looking for a special residential placement. Allegra is retarded. . . . she will never make it as far as third grade in a regular school, and perhaps the best thing for both of you would be for you to have her institutionalized. . . . and by the way, I am too busy to take her on as a patient, but I'd be happy to give you a referral.

Those words were spoken to me over eighteen years ago but they still ring in my ears as though they were said today. As I gasped for breath, my heart pounding, I could barely believe my ears. The chief of psychiatry at a prominent New York City hospital and reputable clinical psychologist on his staff are suggesting to me that my daughter should spend her childhood at some institution! (Remember, this was more than twenty years ago, and the options for children with severe learning disabilities were much more limited than they are today.) I was sure that they were mistaken, and asked for an explanation. Almost avoiding my question, I was told that Allegra was a worried and anxious girl who felt lonely and was without friends.

My daughter had adequate language and communication skills, but could not accomplish even simple math readiness tasks, and showed obvious delays in early reading development. I worried that the types of problems Allegra was having would continue to haunt her throughout her school career. On the other hand, I knew that she was social to a fault, and that her activities for daily living skills were right on target. I thanked the doctor for his opinion, and enrolled my daughter in a regular kindergarten class.

Even with a wonderful preschool teacher, my daughter stood out from her peers. Her behavior during story time was atrocious, and she tended to wander away from the group during circle time, when the teacher would read aloud or share information verbally. This type of behavior puzzled school staff because she was very attached to her teacher (a pattern that followed her throughout her school career and continues to typify her behavior even today).

After another round of private evaluations and a review of the findings by the school, my Allegra was on her way out of the world of general education. She was also on her way to years of being labeled (without any real clear diagnosis), and on her way to being isolated from her peers and from a world of opportunities that would have kept her learning and growing at her own pace, but not in the company of her friends and community. All this before she reached her seventh birthday!

Imagine a world where you are the last on line for everything, not able to share the joys and frustrations of achievement at school or work, compete with colleagues and friends, or understand the rules, having to depend on others for constant help. I felt her pain every day, and I knew that she would feel better about herself if only we could find some thing that she could do well . . . something that would be a source of joy to her and that would build upon her strengths rather than focus on her weaknesses. I tried desperately to help her keep her self-expectations high, and to maintain a positive attitude.

It was through a stroke of luck (and not the advice of any of the dozens of professionals with whom I had contact) that I enrolled Allegra in an ice skating class. The lessons were the best medicine (certainly better than the stimulant drugs she was prescribed for an attention deficit that she does not have). On the ice, she is free from stigma, free from time constraints, free from paper and pencil tasks, free to be relaxed and to celebrate who she is inside. After all, isn't that what we all wish for ourselves and for our children?

Allegra attended three different special schools and finally graduated from Threshold, an undergraduate program for students whose learning disabilities would have otherwise prevented them from attending college. As a beautiful young woman of 25, she now lives on her own, works in an early child care setting and skates . . . and skates . . . and skates! Just like when she first started school, she is still different than others her age in many ways. She struggles with adolescent issues that are long resolved by her peers. She depends desperately on the approval and support of a small number of close mentors and peers, and is not a risk taker. She is living testimony to the fact that parents make an irrefutable difference, and that what is sometimes considered to be science is really nothing more than opinion. (You might be interested to know that a few weeks ago, I learned that the same child psychiatrist who missed the boat with Allegra gave a similarly gloomy diagnosis to a friend's child after no more than a brief visit. . . . I guess some things never change).

I am convinced that parents will try anything and everything to help their children. When conventional approaches fail, and when schools no longer know how to promote academic and behavioral growth, there is an entire industry of alternative providers waiting in the wings . . . biofeedback, neural-reorganization techniques, anti-nausea patches, colored lenses, relaxation programs, vitamin therapies and nutritional supplements, even inner-ear washing to improve vestibular function . . . I know because I've been there and tried them (some of them at least). What I have learned is that there is no substitute for good teaching, and that given opportunities for careful instruction and support, *every child can learn.*

There are a number of ways that parents can guide their children through the hurdles of childhood and challenges of adolescence, and help them enjoy more fulfilling and productive participation in school and society.

(The following outline was used by Dr. Sheldon H. Horowitz, director of professional services at NCLD, to guide the remainder of this presentation.)

1. *BE OPTIMISTIC*
   - believe that you can make a difference
   - keep a sense of humor
2. *KEEP ALL FAMILY MEMBERS INVOLVED & INVESTED*
   - LD is not a contagious disease (although it does run in families)
   - don't let the "macho father" escape going to parent-teacher conferences, helping with homework, helping with studying
   - don't let the "over-invested mom" make decisions without talking about how others in the family are affected
   - don't exclude others in the family (siblings, grandparents) because all serve as critical role models (and they have feelings too!)
3. *BE COMMUNICATIVE*
   - be a good listener
   - speak with other parents who have been through similar situations
   - speak with your child and share your questions and concerns
   - don't be afraid to ask for clarification
   - communicate your hopes, needs, and expectations clearly
   - be a good role model
4. *BE SUPPORTIVE BUT NOT OVERPROTECTIVE*
   - praise!
   - taking risks (hopefully after careful planning) and experiencing success and failure first hand is best way for children to model and achieve independence
   - praise!
   - let teachers, tutors and therapists know that you support their good work (and ask to be included in the feedback loop to the greatest extent possible)
   - give "how-to" advice carefully
   - praise!
   - recognize and build achiever characteristics:
     - goal oriented
     - confident
     - self-disciplined
     - proficient
     - positive thinker
     - resilient
     - proud
     - risk taker
   - praise!

5. *BE SMART BUT MAKE NO ASSUMPTIONS*
    - banking, shopping, safety, social skills (and even intimate relations) are all skills and behaviors that must be learned
    - teachers may know how to teach and schools may have good programs, but that does not assure that your child will learn
    - finding the right school or job is a critical first step . . . next comes the hard work!
    - there are major differences between the kinds of support available for school-age children with learning disabilities and accommodations that are available in work settings
    - having an evaluation and an educational classification as learning disabled is not enough to guarantee help
    - the opinions of "professionals" do not negate the intuition of parents
6. *BE A GOOD MANAGER*
    - check guilt and rage at the door!
    - use incentive often (not punishment)
    - enforce "time on task"
    - practice does make perfect . . . allow time for trial and feedback
7. *BE FLEXIBLE AND LOOK FOR SOLUTIONS*
    - don't panic! (seek resources)
    - be prepared to adapt and modify behaviors and beliefs
    - never get even!
    - be a partner rather than a contestant
    - don't look for a quick fix
    - be a life-long learner
8. *BE RESPECTFUL*
    - privacy (grades, "doctor information")
    - feelings (of children, teachers, administrators, . . .)
    - confidentiality (family, peers, community)
9. *BE ORGANIZED*
    - keep careful and complete records
    - ask for information in writing
    - date everything
    - O.K. to share information from your files with others
10. *BE VIGILANT AND DEFEND AGAINST THE "CRAZIES"*
    - "this is the way we've always done it"
    - "trust me . . . I've seen this kind of thing hundreds of times"
    - "it's not my responsibility . . . I don't make the rules . . . I just follow them"

ABOUT ACCEPTANCE (adapted from an article by Allegra's brother)

- The hardest part of being the brother of a learning-disabled child is acceptance—acceptance of the fact that my sister cannot perform everyday activities that have become so routine for me.
- My mother was prone to handle difficult situations by helping my sister avoid them or by finding ways around them. I, on the other hand, was tempted to push her harder and force her to deal with challenges head on; after all, my own experience was that practice makes perfect. When my report card was littered with poor grades, I set my mind to it and improved my work. Why couldn't she do the same?

- I understand that everyone needs attention at different times, but my sister needed lots of attention all of the time. As I grew older, I was glad for the distance and independence, but I think it took its toll on me in the way of self-esteem. I understood why I was being treated differently, and could appreciate what an overbearing responsibility it was for my mother to take care of things. But on some level, it still hurt.

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THE INDISPENSABLE ROLE OF INFORMED PARENTS

Facilitating Parent-School Communication: Work Sheet

	STUDENT	PARENT	TEACHER	ADMINISTRATION	SUPPORT	OTHER
NEEDS						
EXPECTATIONS						
FEARS						
ROLES						
SKILLS						
OUTCOMES						

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CHAPTER 14

Children with Vulnerabilities

When Will We Turn on the Lights?

* * *

ALLAN BERMAN, PH.D.

When instruction
becomes destructive
to the joy of learning–
that instruction should be abolished
or modified
in such a manner
as to lead potential learners
to experience
the power
the beauty
and the magic of their language

—Dag Hammarskjold

When Alice called me quite some time ago and said that she had read about Kathy whom I had discussed in 1975, she said she wanted me to come here and "tell what has happened in the last 21 years: Have the problems you ran into then been solved?" Well, I can answer that. The answer is no, but there are also different problems now.

I have a new story to tell you to illustrate my points today. Basically Kathy is the story of a girl who really had a very horrible life. The reasons for her difficulties were multiple; she had numerous problems. It wasn't just that she had a learning disability. She was from a terrible home. She had only one parent at home who most of the time wasn't even there. She was exposed to much brutality in her life, physical and sexual abuse. Name the kinds of difficulties a young person could have and it was in her life. She had multiple problems, but actually, of course, this is the kind of individual we often run into. I think we're long past the point where we assume that youngsters have a learning problem and it is the only problem they have.

People with learning disabilities seem to be at much higher risk for a whole host of other problems, some of which are connected to the learning disability and some of which probably had little to do with it. But certainly many youngsters have multiple problems and I think we have to keep in mind that there are many kids who may, because the learning disability is just one more difficulty that they have to cope with, that the mixture of problems they have may lead to much more serious effects than would have happened with any of the learning difficulties by themselves.

At any rate, I was thinking about Kathy. It's a hard thing for me to do because I'm not too pleased with my role in her life and death because I identify with the professionals who worked with her who really didn't know what was going on until it was too late. When Alice called me I decided to think about how far we have come in the last twenty-one years or so and then I got more upset, more discouraged, because it seems to me that we're still having the same kind of difficulties.

One of the things I mentioned in Kathy, which I still mention from time to time, is that when you run into a psychologist it's usually hard to get very far without hearing at least a little bit about rats. So I'm going to tell you a little rat story just to illustrate a point. There's an old experiment in psychology with an apparatus called a jumping stand. The animal gets up on the stand and there's a bunch of doors and the animal has to learn which door is the right door. If the animal makes the wrong choice the door doesn't open, he bumps his nose, he falls into a net, and he needs to try again. If he makes the right choice the door opens, the light comes on, and he gets some food. People I know who work with animals tell me that there are differences in rats much like there are in people and that some rats learn this very fast and some rats take quite a long time. They keep bumping their noses on the doors that aren't going to open and it takes them much longer to finally bump the door that's going to turn on the light and produce some food for them. But they tell me that all the animals that they have worked with sooner or later do learn to stop bumping their heads on the wrong doors. Well, as I tell you my latest story, you'll say to yourself, "Maybe I need to take a lesson from some of those animals"—and maybe we all do. Maybe we still are not quite in the clear when it comes to knowing what to do in handling these young people. So I hope you'll be patient if I want to tell you a different story. Fortunately this one has a better outcome and I think it helps illustrate some of the points I want to make.

The story actually begins about a generation ago, shortly after the period in my life when I had known Kathy and moved north, thinking I would be back in Louisiana before long. I took a job that had to do with the correctional system and one of the things I did was occasionally, when families had young people involved with the system, they would come and ask me to see their children. This story begins with the parents of another teenage girl—her name was Sarah and her parents came in and asked if I could help with the difficulties they were having. She was at the time locked up in a facility called the Diagnostic Center which wasn't part of the training school but pretty much was what the name implies. It was a facility where young people went who were in their first admission and some professional people saw them and tried to develop a treatment plan.

They described a history that probably we would all recognize now as being somebody who had auditory system problems for years that were just not treated as such. She did poor school work, eventually dropping our of school, roaming around at age sixteen and really not getting into major trouble but running into problems because she was truant. There had been evaluations of her but she had never met the criteria—this was of course in the late seventies when there was still a good deal of question as to what was going to be done for individuals with learning problems, whether they even qualified for services at all. Whatever the reason, she didn't qualify.

When I met her she was very agitated, rolled up sitting with her arms around her knees on the floor in her room at the Diagnostic Center. It took a while for her to agree to talk to me, and when she did she basically told me she wanted no part of what I had to offer. I told her that I had looked at her records and decided that there was a good chance that she might have a learning disability and that might serve to enable her to get a different kind of treatment besides being at the training school if she would allow more of an assessment to be done. She said, "Why do you want to do this? You think something's wrong with my brain?" Her parents' lawyer came along on one of the visits and told her that it was true that if she went into an assessment and treatment program that she probably wouldn't have to do any time. She wanted no part of it and I couldn't make headway. Shortly after that she ran away from home and I never saw her again.

I heard nothing about the situation for six or seven years until I received a call from her parents who told me that she had been killed in an auto accident in Florida having had two very young children. Basically they called me because they were going to Florida to bring back one or both of the children and wanted to know if they could come in with the child. I was left thinking, "Oh, oh, here I've done it again." But I felt this would be different. This was about ten years ago.

Casey's Story

We'll call her Casey. It's Casey's story that finally is giving me a little hope, certainly not because I did so much that was right, but because the system seems to be working a little bit better for her. There's a lot of similarities in this case to Kathy's life. Casey at age five had been exposed to all kinds of chaos, turbulence, probably abuse although she herself doesn't remember any of that. She wandered around with her mom and brother when they were very young; they were homeless for some time. Eventually the family settled in an area in south Florida for transient people. She started in the kindergarten there and couldn't adjust at all to the structure of school because she'd never known anything like that before. It was only a few months later that her mother was killed.

So now they were in my office after all of this: her mother had died, her brother was now going to be living in a totally different part of the country, and she was being put into an environment that she knew nothing about. You can imagine what this girl was like when she came! She was described to me by her grandparents (who were in their late fifties at that point) as "a whirling dervish" and that was a good description I think. She was very very active, constantly anxious, constantly vigilant, trusted no one. Her grandparents, of course, were terribly frightened that she was going to grow up and be like her mother; they were very worried about that even though the parents have other children who had successful outcomes. But they were determined to try to do what they could for her and they understood that part of doing what they could would be to at least make sure that people knew what was going on with her early on.

We arranged to have her evaluated at one of the local teaching hospitals that specializes in active children. Initially they felt, as most of us did, that most of the difficulties she was having were due to the unusual life she had. They wanted to see how she would adjust in a year or two, and there was a reluctance to put any other kind of diagnostic label on her.

She started into a local elementary school in a small town which doesn't have a lot of resources. Basically they have generally good teachers but limited funds available to them. Casey certainly had teachers that cared a lot about her. This is a situation where the family had lived in the town for years and many of the teachers that Casey had knew her mother, knew the other people in her family and tried very hard to do right by her. Most of the teachers in the school knew her history, knew the difficulty she had going in, and did everything they could to work with her to try to help her, to be patient with her. The problem is they didn't know what to do.

After a couple of years like that, back they came, Grandparents very distraught, feeling we didn't want to fall into the trap of going through this again. I suggested sending her back to the group at the medical school to re-evaluate her now that she'd had some adjustment time. They did so and they felt that she did meet the criteria for ADHD. She was put on Ritalin and she did make some improvement. She was able to focus more, wasn't as active, but still had a good deal of trouble learning. She clearly was going through some significant psychological problems also.

Then she got to grade seven. I don't know whether the appropriate metaphor is the roof fell in or the floor caved in, but as so often happens at this age, or the first year when children get out of elementary school and into a secondary school format, they don't have teachers looking after them as much. She was not able to get by any more—in elementary school where the teachers had been extremely doting and caring of her and giving her a lot of extra time and attention, even with all the difficulties she had she managed to get through. In junior high school where no one particular teacher took that kind of interest and where she had to move from one class to another, the increased adjustment was just too difficult for her. She couldn't handle it and her grades plummeted. By that time I had become affiliated with a group where we had our own diagnostic team involving myself, some other psychologists, some speech and language people, and special education people, and we worked with her ourselves and found that she had serious difficulty—in addition to all her other troubles—with phonological awareness. I'm thinking, "Here comes this rat again!" This rat's jumping and banging his head against the door and here's this girl, she had this problem all along obviously, and with all the attention being paid to her difficult history, and with the most wonderful of intentions, including myself and everyone else, including teachers, trying the best they could for this child, here was another teenager who got to junior high school with a significant language disability that had not been picked up.

After I wallowed in a little banging myself on the head, I realized that there were some important differences between Casey's case and her mother's and Kathy's case. First of all Casey had had many more caring people around her for many more years of her life than either of the others we talked about. She had access to more resources. The schools and the professionals were knowledgeable about learning problems and knew what to do and fortunately, even though late in coming, because of the additional resources available to this child, she actually had started to come around and make a better adjustment and was starting to do better with the efforts of a lot of professionals.

I'm hoping that this rat here has turned the corner and that finally we're beginning to jump toward the right door and it's going to open and maybe allow us to begin to understand the nature of these problems earlier. But as I review what's happened in this situation and the others I've been involved with—sure, this time we got the point before it was too late. But there were several things going on in this case that strike me as going on in a lot of situations, that prevented our really being able to handle this child—and many others like her—in a way that would be much more effective and wouldn't cause her to have to go through so many years of distress before we really understood what was going on.

Multiple-Problem Families

I want to consider now some of the factors that I think are interfering these days with making best use of the resources that are slowly beginning to improve for people with learning and behavioral difficulties. The first has to do with children from families with multiple problems. I think that these situations are getting worse not better; that is, there are more children coming in for treatment with multiple difficulties in their lives. There have been a lot of changes in our society, changes in the way people view parenting, changes in the willingness of people to support specialized training and treatment. There are many children being born to individuals who have had drug problems or alcohol problems.

For many years it was very difficult to talk to any group about learning problems and imply that other things might be going on in the lives of children besides learning problems; now it's not so difficult. Now what we see happening in Casey's case is the acknowledgment that the life that they've had is very difficult. We know that children who have learning problems are six to eight times more likely to also be exposed to abusive and neglectful situations. It's not the exception—it's more the rule when we run into learning-disabled children that they're going to be in families, (or situations—sometimes they're not even in families) where there are many problems. There is urgency to so many of their other problems—sometimes they're life-threatening problems—sometimes they're being neglected; sometimes they're being abused—the urgency of these other problems sometimes requires immediate attention and that's to be understood. But I think it sometimes can divert the well-intentioned people who work with them from realizing that there may also be learning problems—that there also may be problems unrelated to or perhaps uncaused by some of their other social psychological problems.

Multiple Vulnerabilities

One of the advantages of having been involved with the learning disabilities area since it began in the early seventies is having been involved with some of the groups that actually defined and developed some of the definitions for learning disabilities. I've always been very concerned about the so-called exclusionary definition that so many places have, that exclude children with cultural deprivation, sensory or motor problems—all the different kinds of other problems that people can have in life. I'm concerned because it seemed to me (and seemed to a lot of people) that there's no reason why we can't have a learning problem *and* cultural deprivation. There's no reason why you can't have a learning problem *and* an emotional problem and, as a matter of fact, we find, in more cases than not, children do have these multiple areas of vulnerability. So that just because we're attending to one of those areas of difficulty doesn't mean that that's the only problem the child has that needs attention.

Despite the fact that it sounds simple to say, it seems to get overlooked so often. We have a tendency to want to pigeonhole people and put them into categories and say, "What is the category in which this person qualifies for special services: if they are emotionally disturbed they go in here, if they're learning disabled they go over there and if they have a problem with a very deprived background they go over there." I'm sure we all know that we have children who have more than one of those categories of handicaps and that simply trying to define their problem by putting them into a room that is specially designed for one particular kind of difficulty is not going to solve their problem.

I'm not sure how easy the solution is going to be for this one because it really involves changing some of the basic concepts around which teaching and certification have occurred. In many states certification is by specialty; some states have cross-categorical specializations—a person can be certified to be a special education teacher for different kinds of special education groups even though they may have had training in dealing with only one type of problem, such as learning disorder or emotional disturbance or cultural deprivation. But we have a multitude of multi-problem children and nobody's getting trained, as far as I can tell, to deal with them.

For instance, we talk about the problems of homelessness. Casey's mom was homeless. She certainly wasn't the only mother wandering around with young children. What do we do when children like this come into a school? What differences should there be in the way we approach them? Obviously these children who have not had consistent homes, who have not had standard care, probably have not had the nourishment physically or emotionally that most other children get—what does this do to their learning profile? Obviously, it makes them more vulnerable. The more vulnerable a child is, the more likely they are to run into learning difficulties, and the more likely the people who work with them are to say all their problems are due to their terrible background. This is what happened with Casey. Teachers were very caring. They tried to do what they could. But nobody knew what to do for her. Nobody knew what to do with a child who had her background.

There are many homeless people—many homeless children—children who wander from one environment to another. There are children of alcoholics, there are cocaine babies. I've seen a number of children who were addicted to cocaine when they were born—whose mothers were addicts—and they're running into various kinds of difficulties now that they're starting school. We've heard about the problems of fetal alcohol syndrome and the effects that that can have on learning. Even though we know that there's a high incidence of children coming into school with these kinds of backgrounds, we know it but we don't prepare ourselves for the fact that we're going to have this happen. Not only that, I don't think we even have the basic research to enable us to know what to do.

This is not something that you can just say okay, let's run a course for teachers on how to deal with children who were babies with fetal alcohol syndrome. We haven't had the ongoing longitudinal studies accurate enough to follow these children along and find out what really happens to them. How does it affect their learning? We find out what happens to them sociologically many times, and what happens to them psychologically. Certainly speakers today have sensitized us to the issues that our nervous systems have so many variations in them that the vulnerabilities caused by these unusual environments simply increase the likelihood that there's going to be even more variability in the way these children learn. And yet even though we know that there are more children from these kinds of families coming into schools, I'm not sure we're prepared to know what to do with them. No matter how well intentioned we are. Certainly Casey's teachers in elementary school were very well intentioned. Nobody could fault them for not giving her time and caring, but she still slipped through with an auditory system disability that was masked by so many of the other problems that she had.

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Children with Trauma Histories

This relates to the next issue I wanted to mention, and that is children with trauma histories. It's very hard to work with children for a length of time and not be exposed to the problems involving children who have been abused physically or sexually. That's usually what people mean when they talk about trauma histories although obviously there are other kinds of serious traumas that children can be exposed to. One of the things that seems apparent to me is that if we're talking about the nervous system as being in a state of very sensitive development early in life, as I think we all agree, the occurrence of a very significant psychological trauma clearly must affect emotional/psychological needs of the child. We may not be as aware of what specific effect the traumatic incident or just increases their vulnerability. I know I use the word *vulnerability* a lot, but I think that's what we're dealing with—we're dealing with increased demands of our environment for children to learn more and to learn more effectively?

A few of us were reacting to the earlier presentation on computers and I was thinking, "Oh, my goodness—I don't know if I could handle that. I've got a Ph.D. and I got blown away by some of that conversation." But that's just a sample. You see kids today—they're all playing with computer games. I need to call my son to set my VCR because I can't do it. The environment is increasing steadily in terms of demand, how much children have to be capable of doing. Think about what children in elementary school have to do today. I don't think I would have gotten out of the second grade today because the demands are so much greater than they were then. The demands are increasing and the children are becoming more vulnerable. Their systems are being assaulted by more and more difficulties and there's always going to be an interaction between the readiness of the nervous system and the degree of environmental support it gets.

Trauma is going to have an effect not only on the psychological well being of children but also on their developing nervous systems. I have a graduate student, finally, after all these years, interested in this and we're hoping that we can begin to design some studies that will show the cognitive effects—cognitive meaning the effects on learning and processing of information—of early childhood trauma. It's the kind of thing that everybody says "Well, of course there must be some effect—how could there not be some effect? But when you actually say what is the effect, we can't answer that because we haven't done the research. So that even if we were to say teachers ought to be trained to know how to handle children like this, what would be train them in? What would we teach them to do?

An additional concern is that these types of multiply vulnerable children really require much more sophisticated and detailed assessment. We really can't just look at the obvious kinds of difficulty that the child is having, no matter how well meaning we are, and think that that is sufficient. The very excellent team at the medical school who evaluated Casey certainly were very competent people, but just like the rest of us they reacted to the most obvious part of her life. Sure she was psychologically harmed by her life; certainly she was depressed; certainly she was suffering from the shock of having been torn away from most of what she knew early in her life, never having been exposed to a more structured or learning type situation, but we needed to know more about her than that.

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What Happens after Elementary School?

There is one thing that is clear from the example of Casey and I emphasized that part of her life for this reason—people thought they were out of the woods with her in terms of her learning problems when she got out of elementary school. Sometimes there is that feeling elsewhere. If we can just get them through elementary school into junior high or high school then they'll be better. I don't think we really believe that these learning problems go away, but perhaps we believe that children cope with them better. Maybe some of them do. But there's a decided difference in the attitude and receptiveness of secondary school personnel, administrators, and teachers toward dealing with children who have learning problems.

Part of the problem is children themselves. We all know what the reaction of the teenager is going to be—they don't want to have any part of it. They don't want to be considered "retards." They don't want to be considered the ones who are odd or won't be able to go to regular classes. They don't want to be earmarked as the ones who get special help. It's given rise to integrated programs so that it's harder to pinpoint who's taken out of the classroom for what. There have been some creative ways to try to deal with this but they haven't been extended enough beyond the elementary school.

Teachers in secondary schools much more often see themselves as experts in their subject matter—English teachers, math teachers, science teachers—and not so often as people who really specialize in nurturing young people, which I think you're more likely to find in elementary school—teachers who focus more on the whole child. It's understandable why this happens. Certainly we have to have teachers teaching history who know history, but they also have to know a lot about children.

In fact, I think a thorough understanding of child behavior and child functioning is critical no matter what age group people teach. It may be more important than the subject matter they are teaching. You have to engage the child. The child has to feel like, "There is something going on in this classroom that I would like to know about." And, the child has to feel "I could learn this." Those of us who were being blown away by the computer talk, figured that if we really sat down and tried to learn it, we probably could do it. We could take this course or that course. Most of us believe that because we've had our histories that if we sat down and studied the right things we could learn how to do it. But of course children don't automatically feel this way, and one of the problems we have is that learning impaired children are children who have not made good school adjustments. They don't think that they're going to be able to learn what's being presented. What we have is children who don't feel as though they are going to be successful, and teachers have to be able to engage children like that. They have to try to deal with the problems of the child who doesn't believe that they can learn even if they might be interested in it. This is hard to do.

When I teach at the university I teach psychology. That's something a lot of people are interested in. The most interesting similarity is when I teach at the extension division which I do once a week—where there are adults. It's an adult education situation where there are adults anywhere from their twenties to their sixties who have decided for one reason or another to go back to school after sometimes many years of not being in school. And they have that same attitude. They come into class, they're very nervous, they don't think they can do it. I've had a lot of experience with that group that I've thought were very similar to when I deal with younger learning-disabled children. Because they just don't think they can do it! I often teach the same course on campus and to the adult education group and I have to do it totally differently, because the one group is made up of people who have been relatively successful academically and who are ready to take in whatever you have to offer and the other group you first have to convince them that not only is this interesting but that they can learn it. That's hard to do. I know it's hard to do and it must be even harder to do with very young children. But it's something that we have to tackle.

Children are getting turned off by the educational process very early. They come into junior high and high school already convinced that they may not be able to learn. Actually most of the research suggests that by the time a child is eight or nine years old they've already made a fundamental decision, usually by the third or fourth grade, with respect to whether or not they're going to be successful in school. That age group is the dividing point. Some children seem to feel they're clicking with the school system and they tend to maintain motivation, and others go in a different direction. It's as if they drop out mentally at that point. It becomes a continuing struggle to deal not only with whatever learning problems they have but also the motivational aspect. There are a lot of things that enter into motivation but the fact is we still need to know how to deal with it.

Most bright children who don't have any problems—they won't need specially trained people to teach them things. They soak up whatever you have to offer. It's wonderful to work with the graduate students I work with at the university. They're very smart; they know they're smart; they're very eager. You just say, "Here, learn this" and they learn it. You can say, "Hey, can you let me know what this book is about?" They'll learn it better than I do. I can say "Can you tell me about this book so I can know what's in there?" and I don't have to read it myself. I get a summary from a really bright graduate student who really likes it. You don't have to be a really good teacher to teach graduate students. You have to be good at other things. They have different types of developmental issues to deal with.

The best teaching has to be for the people that are the most difficult to teach. I think probably people who come to meetings like this acknowledge that. It's people who don't come that we somehow need to get the word out to. But this becomes much more an issue as the child gets older. The child doesn't want to be treated as anything special, so if they have not been identified as needing help or if the child hasn't gotten help that's worked, they're not going to be very receptive to getting it when they're in high school. We have to think about ways to involve them, to engage them. In psychotherapy, one of the hardest things to do is to engage somebody who doesn't want any part of what you're offering. But you have to engage them. You can't throw them away and say "too bad."

Are Bigger Schools Better?

I want to mention the whole movement toward accountability of services, or reducing the cost of services. There are many problems involved with this movement. Of course it started out with accountability of health care but it's trickling down to a lot of other services. One of the responses to cutting costs educationally has been to increase the size of schools. Regionalized schools, regionalized services; have children attend bigger and bigger schools or sometimes schools out of their community where few people know them. There's some interesting research going on by Louis Nizer, who's an education specialist. He mentioned some data that suggests that the larger the schools are the less likely people in the school are to know each other. Makes sense. He then went on to cite some further research on learning—not necessarily looking to tease out any particular kinds of groups here such as learning disabled or any other kind of handicap. They were just looking at the variable of "How many people in the school do you know—how many do you think know you?"—the degree to which a child feels like known and cared about by other people in the school. This is a tough thing to measure, but they had a very good system for doing it and they came out with a not terribly surprising finding that the more a child feels known by others in the school, the higher performance and achievement.

Nizer goes on to give a discussion of the importance of personal attention, the importance of being known, and he argued against making schools bigger, concluding that schools would actually do better if they remain smaller and more personalized even though it might become more expensive to offer so many services to so many different and smaller schools. With this being the case, we have concerns over our vulnerable population that we're talking about in the first place. So many times we see the regionalization of special services which may serve to pull children away from the environments which are more nurturant and to which they feel more attached. Nizer's research tends to make us want to question whether or not this is an advisable thing. Now many places have just recently succeeded in developing regionalized services and getting them for children in areas that couldn't afford such resources of their own. It's just another complication as to whether or not for a particular child it makes a lot of sense to do it this way.

ADHD

I want to mention with the phenomenon of ADHD. For a long time I was on the ADHD bandwagon, and I still am to some degree. I'm not an extremist; I do think it's a real problem that some people have and I think that there are some excellent treatments for it. But I'm also concerned that it's becoming overly overused as a way of describing children who are behavior problems or who are management problems in the classroom. Learning-disabled children are by their very nature going to be more likely to be involved in multiple problem situations, they're going to be more vulnerable, they're going to have more difficulty with behavior problems, with management problems, with frustration, with self-esteem, and with depression. Many of the symptoms of depression in childhood would sound very familiar to you. A depressed child can't concentrate, gets distracted, the mind wanders, depressed children are often very agitated—they're often not the sad-sack kind of individual that you'd expect to find but they are often very agitated, very motorically driven. Sometimes it's very difficult to discriminate between someone who's ADHD and someone who's depressed. We're getting a little bit better at doing that. There are some people who feel that significant depression in childhood may look like ADHD and we may make these mistakes.

So many children are brought in to my office where parents say, "We think this child is ADHD." You might see any type of disorder or problem but people think that ADHD explains it. Some children clearly have this disorder; some children clearly benefit from medication for this disorder, but I'm getting concerned that too many children are being shunted off into this particular treatment hole. Just the way we were doing with children who have been traumatized. Just the way we were doing with some kinds of other difficulties in their life without really taking a good look at what other problems may be going on. Just the way Casey's difficulties, I think, got masked by too quick a tendency to say, "Well, this is what it must be, therefore we'll treat that" and not really look beyond the obvious until she got to the point where her problems were much more serious in learning and therefore much more difficult to deal with.

I'm concerned that this is happening more; I'm concerned that there is a tendency to treat ADHD more superficially, as if to say, "Well, that's what it is—this is what we'll do for that" and not look much beyond that diagnosis. I'm only one psychologist functioning in the smallest state in the union so if I'm seeing it then other people must be seeing it, too. It must be happening. In talking around here today I'm definitely getting the impression that it happens here and other places that I go. Not all children who can't tolerate inadequate teaching are ADHD!

Conclusions

I'm talking about very complicated issues. They're not easy to solve. That's one of the reasons why they're still there and one of the reasons why people haven't solved the problems. They're tough. But I think that they suggest that the people who go into classrooms these days to be teachers have to be equipped with a broader and a different array of skills than may originally have been the case. Those who teach the youngest children have to be experts in child development, in understanding that regardless of their difficulty, young children have only so many ways they can express being unable to fit in to the system. Even though they may look the same, there may be very different kinds of things going on and they need very different kinds of treatment.

We can acknowledge that on the one hand, being able to tell who's who and which is which is very difficult, and teachers are being asked more and more to do that very thing. They're not getting the support in terms of assessment and diagnostic services, or they're getting the assessments done by people who don't have the training themselves. And so there is far too much dependence upon the classroom teacher's knowledge of these types of interactions and vulnerabilities. We certainly know that good teachers can do a lot to help ease the way for children, particularly children who are having difficulty in school.

More and more as society is leaving child rearing to other people besides parents, more and more is being asked of teachers. More than 60 percent of children grow up in one-parent families. The old ideas we had of what children are like are all based on families that don't exist any more. How many children do you know that exist in a family where there are two parents, at least one of whom is home with the children most of the time? It's very rare for all kinds of different reasons. Parents aren't spending the time with their children, and they're demanding that social systems and agencies make up for that. But we're never really going to make up for that. I'm old fashioned enough to believe that there's nothing like a family to prepare a child for life; but, the fact is, it's not there. And, just as it's been over the years, more and more gets expected of schools and teachers and other people who deal with children.

What we need to know to work with these young people is even more profound than it used to be. It's unfortunate that the value of well-trained teachers has not been made apparent enough to society so that they can be compensated enough to warrant the kind of training they need to have.

More and more children are growing up without consistent caring adults in their lives. One of the areas of research that is clear is the research on attachment. We know that nothing substitutes for consistent, loving attachment figures during the first several years of life. If that doesn't happen, problems result. Then we wonder why our children are getting into trouble more, and they're more aggressive, and they're more violent, and they don't seem to care about people, but we don't spend the time with them during these years to deal with that. The ball is dropped in front of the teachers. Marsha Lenihan, the psychologist, has some wonderful ideas, and has said sometimes we have to practice "radical acceptance." We might not like things the way they are, we may not be happy with them, but the fact is if we're going to exist as teachers and people who care about children we have to be prepared to deal with the increasingly complex needs that they have, and we have to prepare ourselves to handle them.

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CHAPTER 15

All I Have Learned about Learning

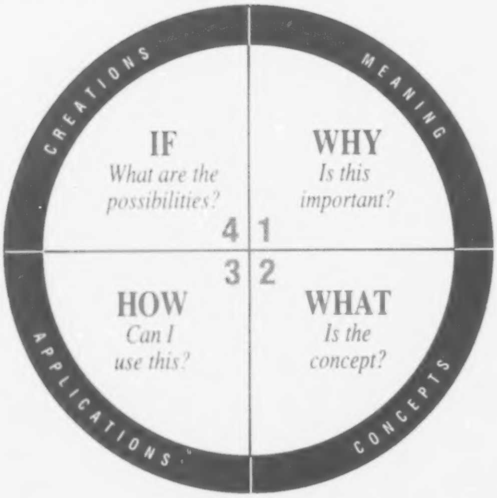
BERNICE McCARTHY, PH.D.

* * *

> *All children are like all other children in some ways.*
> *All children are like some other children in some ways.*
> *All children are like no other children in some ways.*
>
> —Kluckhohn and Murray

The 4MAT Model of Instruction

4MAT is an open-ended learning model that offers teachers a method for broadening their delivery of instruction, and specifically encompasses strategies that appeal to the diverse approaches students have to learning. This method requires that teachers break out of the traditional lecture approach to lesson design by using more active learning processes and strategies, as well as the more reflective modes of teaching. The basic premise of 4MAT is that while students favor different places on the 4MAT cycle according to their styles, they all need to go through the four major steps when learning anything, as illustrated in the following diagram. Students should understand:


CREATIONS
MEANING
APPLICATIONS
CONCEPTS
IF
What are the possibilities?
WHY
Is this important?
4
1
3
2
HOW
Can I use this?
WHAT
Is the concept?

1 Learner motivation
2 Conceptual mastery
3 Application of ideas
4 Creative synthesis

Most schools focus on teaching students concepts (step 2 of our model) with little regard to other fundamental questions:

Why is it important?
How can I use this in my life?
What are the possibilities?

We believe that successful learning combines all four of these elements. It begins through the creation of personal meaning for students, proceeds to conceptual understanding, then to application, and finally to integration. The learning styles of students result in varying levels of learner comfort as they move through the cycle. Students experience their most comfortable place, while being stretched to learn in ways that are more challenging for them.

4MAT offers teachers a framework for designing instruction that helps students . . .

- Construct their own meaning.
- Create meaningful, coherent representations of knowledge.
- Link new information with existing knowledge.
- Engage in an active process that allows opportunities for self-expression, group work, discussions, applications of knowledge and personal, creative representations.
- Become critically involved in learning and have input in the learning.
- Become more actively involved in the learning process.
- Represent knowledge in multiple ways.
- Express themselves on the concept being taught.

When teachers use the 4MAT instructional design, they develop the following skills in their students:

Focusing and generating skills

- Observing, questioning, visualizing, imagining, inferring, diverging, brainstorming, listening, and interacting.

Patterning, organizing, and analyzing skills

- Seeing relationships, identifying parts, ordering, prioritizing, classifying, and comparing.

Inquiring, exploring, and problem-solving skills

- Experimenting, predicting, tinkering, and recording

Integrating and evaluating skills

- Verifying, explaining summarizing, synthesizing, re-presenting, and refocusing.

In addition to identifying the four major elements of learning (meaning, concepts, applications, and creations), we believe that teachers need to use both left- and right-mode teaching strategies. Most schools emphasize left-mode thinking. Left-mode thinking is sequential, segmental, and essentially verbal. Even though verbal forms of instruction (in which teachers talk and students listen) are a major part of excellence in education, students also requires other kinds of processing strategies.

> To restrict truth to what one can claim is to claim much too little for what we are able to know (Polyani, 1966).

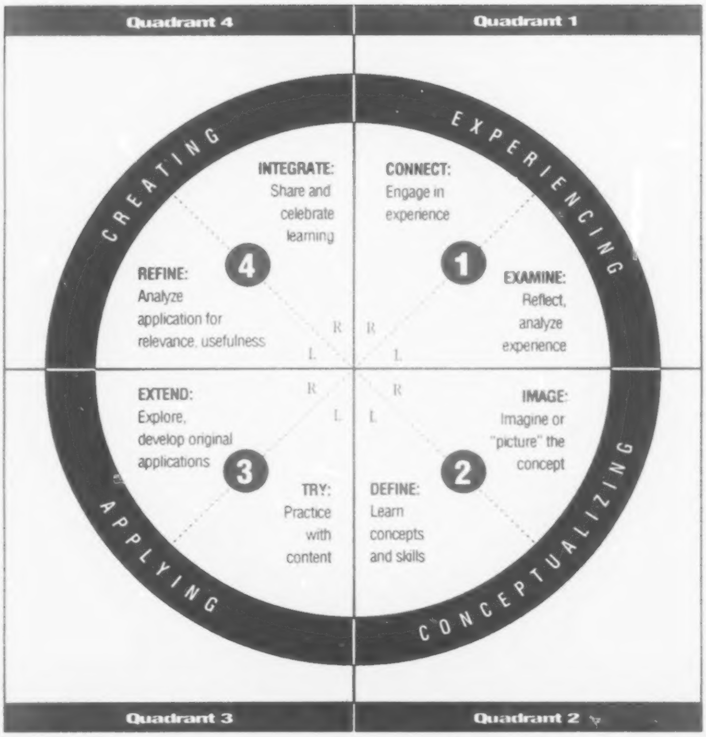
These strategies are attributed to the right mode: synthesis, finding and creating spatial relationships, using images, perceiving wholes from collections of parts, hands-on explorations, and many dimensions of nonverbal reason. In learning it is the balance of both modes—so essential for excellence—that educators must seek.

> Meaning is multiple and the forms of representation provide the means through which meaning is made (Elliot Eisner).

Once right and left mode strategies (strategies that encourage students to both analyze and synthesize information) are added to the four quadrants, an eight-step model emerges that is best summarized with the following eight words:

Connect
Examine
Image
Define
Try
Extend
Refine
Integrate

The following illustration defines the complete lesson planning process in greater detail:


Quadrant 4
Quadrant 1
EXPERIENCING
CREATING
INTEGRATE: Share and celebrate learning
CONNECT: Engage in experience
1
EXAMINE: Reflect, analyze experience
4
REFINE: Analyze application for relevance, usefulness
R
L
EXTEND: Explore, develop original applications
IMAGE: Imagine or "picture" the concept
3
2
TRY: Practice with content
DEFINE: Learn concepts and skills
APPLYING
CONCEPTUALIZING
Quadrant 3
Quadrant 2

The traditional approach to instruction focuses efforts on step number 4 and step number 5 of our model. Little effort is made to connect content to students (step number 1), or to apply learning in new ways (step number 8). Yet, interestingly enough, when we asked teachers to indicate which step they enjoyed teaching the most, they showed the strongest preference for quadrant 1 activities. As one teacher stated, "I like to set the stage to awaken interest in my students."

The following lesson plan from a teacher in San Antonio, Texas, demonstrates how this process works in the classroom:

CONNECT: A social studies teacher begins her new unit on democracy with a simulated game with no rules, in which there is no order and people's rights are not protected.

EXAMINE: Then students express how they felt during the game, what changes need to be made, and how games with no rules are simply not fair.

IMAGE: The students are then asked to draw a picture of what life would be like in a place in their community (playground, mall, grocery store, intersection) if there were no laws or rules for the good of all. A gallery of images is created in the classroom and the children browse the pictures and discuss the ideas presented.

DEFINE: The teacher uses a variety of direct instructional methods: lecture, textbook readings, and filmstrips to teach the concept of self-governance, the ideal of the Constitution, majority/minority rule, and representational government.

TRY: The class is required to answer questions on worksheets, do chapter reviews, and take an objective test. If some students have difficulty with the test, the teacher arranges a reteach.

EXTEND: Then the students choose a controversial class problem to solve. They use a secret ballot to choose the problem. The class is divided into a House of Representatives and a Senate, the Senate being smaller than the House, and retaining small groups that become committees. The Constitution is represented by the rules regarding the conduct of education laid down by the state, school district, and school administration.

REFINE: Next, the students create a "bill" to solve the problem and vote on passage. In addition, the teacher creates a very controversial solution to the problem and gets it into committee, so the children have to weigh and analyze the possible outcomes of both solutions.

INTEGRATE: The students then create a student government for their own classroom and meet and make laws for their class and post the laws.

The 4MAT System has been adapted in such diverse settings as Paterson, New Jersey (where we began working after the district was taken over by the state), the country of Singapore (where we have trained large numbers of teachers to train their peers and design curriculum), and the states of North Carolina, Texas, Florida, and Louisiana (where we have trained state department staff developers to work with their constituencies).

CHAPTER 16

Theory, Policy, Practice, and Reform

Reality-Based Action Plans

* * *

> *As for the search for truth, I know from my own painful searching, with its many blind alleys, how hard it is to take a reliable step, be it ever so small, toward the understanding of that which is truly significant.*
>
> —Albert Einstein

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LEVINE: Well, I'd like to get us started dealing with some thorny but readily resolved issues. The first question I'd like to pose to this panel relates to the fact that this summit meeting has brought out a lot of developmental differences and variations that exist among children, and that we're studying and recognizing these differences increasingly at the same time that people in Washington are talking about academic standards. The question is, do academic standards translate into the same standards for everyone? How do we reconcile the desire to achieve uniform academic standards with what we see as a kind of vast array of differences in the way individuals learn and accomplish things? I thought we'd start with an easy issue and get to the more complex ones. Would someone like to break the ice?

ACHILLES: Sure, I'd like a chance to comment on that. I'm on record as disagreeing violently with the concept of increasing academic standards the way we're going about it. Bob Slavin at John Hopkins says he wonders how increasing standards the way we're doing it will help a first grader learn to read better. Somehow we've got to reconcile that condition, that's certainly part of the challenge. We seem to be moving forward today by a tremendous emphasis from the business sectors to do things the business way. There are certainly things we can do in education that are more businesslike but we hardly would have them all. However, the notion that business should right education into the standard movement really comes in the total quality concept of Demming's that everyday things would get a little bit better if we could move the standard forward, is not really what we're about in schools. I have a little slogan I use, "Business builds in dollars, education builds in cents (that's sense)." There's a difference here, depending how we approach what we do. I don't turn out widgets. I don't want each car to look the same, I don't want each bottle of Coca Cola to read exactly the same. I want each youngster to be a unique youngster unto himself. So, the business model is not the model we should be using. Rather, we should use a professional model of client and service. Until we can get that settled and into the minds of the policy makers, we'll continue to be in trouble.

LEVINE: Bob, do you want to comment on that?

BROOKS: In many ways, if we take seriously the work of Mel Levine and Howard Gardner, all children do learn differently and they all have different skills. I think we have to have different standards. There are some children who will never read as fast or, I think, do as well on certain tests, and we have to have schools that truly appreciate these unique differences. I think we also have to look at how we measure within different areas of child skills, how they are improving. I never tested well on reading tests, because I'm a very slow reader.

When I went to school, I only finished about two-thirds of every reading test I ever took. But, what I do read, I do comprehend. So my feeling is the question should really be "What are the quality standards we need so that we truly appreciate the unique differences of every child?"

LEVINE: Alice, do you have an opinion on this?

THOMAS: Oh, yes. It has much to do with what was just said. Having strict standards that apply to everyone is denying the truth that everyone is different. There should be standards, and the first standard should be that every child gets a solid education. There should be a standard that every child has an opportunity to show what he or she has learned so that we can gauge from it what we need to go next—not to see how little we have done, but to know where we need to go from there. The emphasis also, in my opinion, needs to be placed on how we better educate our teachers to better understand how to access each child's kind of mind and develop it to the fullest.

HALLOWELL: Yes, we could really spend the whole rest of the day on this question, and it pulls very strong feelings in all of us. The whole purpose in our being here this week is to try to develop greater complexity to this question of standards. If it were simply a matter of willpower and standards, all we'd have to do is use a bigger stick with every child. I started off Monday with the image of my first grade teacher, Mrs. Eldridge, with her arm around my shoulder. To me that's the direction education should be heading, not the direction that we have in Boston where the President of Boston University, John Silber, has summarily canceled the university's really wonderful and quite sophisticated policy for students with learning differences. Silber is in the paper every day championing standards. I'm sure he's well meaning but the destruction that he's creating in Boston is terrible. It's a very seductive, misguided notion. I mean, who in the world would be opposed to standards? We all want people to learn as much as they can; it's how you go about promoting it that causes the problems.

LEVINE: Priscilla?

VAIL: I would turn to the work of Theodore Sizer who is advocating that a high school curriculum be made up of fewer units but greater learning in greater depth, with greater variety. One of the things that has happened in education is that we have forgotten that every time we add something into the curriculum, we have to take something out. These days, we have an educational swelling plum-pudding. We have forgotten to take things out as we have added new components. We need to take a look at that, remembering Sizer's work. Some of the most exciting work in education today is in the field of what's called "measures of mastery." How do we access what kids have learned? If we look at the idea of exhibitions, or a portfolio assessment, work with essential questions—someone was quoting Grant Wiggins again the other day—then we open up opportunities for different learners to show, in fact, what they have learned, and to strut their stuff. Kids are like the rest of us—they enjoy doing that. Of course, teachers need to have a greater variety of methods and materials, but if we look at having fewer subjects perused in greater depth, with a wider array of measures of mastery, I think we're moving in the right direction.

ADMIRE: The question is one of resources. Simply, if we don't provide sufficient resources for children to learn as much as they can, we're going to give them to me in the criminal justice system to deal with the failure.

DICKMAN: Yes, I agree with everything that has been said. I also think the kind of testing that they are discussing on the national level now is a retrospective approach to determine the quality of education, which necessarily determines what we're doing wrong and not what we're doing right. What we should be doing, I think, is putting more emphasis on failed process that makes it virtually impossible at the present to bring research-based methodology and programs to the service delivery level of our educational system within a reasonable period of time after the research has supported the efficacy of those programs. It's like closing the barn door after the damage has been done.

BROOKS: The kid should get an "A." How's that? (Sarcastically.)

LEVINE: Well, I also want to go on record as agreeing with what has been said. Myself, I don't enjoy being this much in agreement with everyone—it's a very uncomfortable position. Could we have some more extreme right-wing views to stimulate us?

LEVINE: (Sarcastically.) I think every kid should get an "E" too, because I think the experience of dealing with feelings of inadequacy may be one of the most important parts of your education! Maybe we should worry just as much about kids who fit the mold too well, and what's going to happen to them in the long run. But, I really feel it's a failing of our democracy when education becomes politicized and reduced to apple pie. It just sort of frightens one. When the most uncontroversial thing you can say during a political campaign is we need to improve our schools. Then you have politicians competing with each other to come up with the simplest possible solution that everyone can understand. That really has the look of reductionism, that oversimplifies the issues, and that flies into the face of reality. One of the realities is what we've been talking about all this week: neurodevelopmental pluralism. So, if we want to say, okay, we agree on that, what strategies can we use to infuse neurodevelopmental pluralism into schools so that schools recognize that there are different kinds of minds so that we can affect policy? How can we get the theory to have an impact on policy and get people over this notion that all the answers are in the business world, which is such a silly analogy? Why don't I say all the answers are in the medical world, or we can take any world? But the answers are in the education world.

ACHILLES: You know that we're going to have, in the very near future, another education-bashing session because I know stock is going down a little. The Big Three are losing to share the automobile business now and, whenever, this happens, education becomes the culprit. Those of us who are in the business know that economic indicators may be remotely related to what you and I do in the classroom. One of the key ways to.get this into policy is to have more children staying in the Lincoln bedroom and more children giving advice on AirForce 2. That's the way we get attention. I believe that small schooling, in other words, small numbers of youngsters in the classrooms is the most efficient way of connecting what's wrong in education.

LEVINE: Does anyone else have any advice for getting theory and knowledge into policy—some practical ways that one could go about doing, operating that way?

BROOKS: I always like to start with "What are the obstacles?" because, before we can move ahead, we have to think about the mind-set of the person who you would like to see change, so that we don't come across in a very unempathetic way that causes people to get very defensive. And, whenever I'm giving workshops at schools, some people will say to me that there are people who don't believe in what I say. How do you change their minds? I don't think we can change anyone's mind unless we as a group say, "Why is it some people even with the knowledge won't use it?" We have to look at that. In understanding the obstacles, our plan of reaching these people will be much more effective. Another point on small schools: The last issue of *Horace*, which is put out by Effective Schools, had a wonderful summary of research on the importance of having small schools and small classes. What it is, I think in a small classroom, is more opportunity to have a personal relationship. We get to understand students much better, and we can then be much more helpful to them.

LEVINE: Any other suggestions?

LEVINE: I would like to jump in here and make a few suggestions that might have some appeal to policy makers. First, we need to consider, in addition to having small schools, having more different, greater varieties of educational pathways that children can pursue. Those educational pathways should be designed in such a way that none of them looks like tracking, that none of them looks like second-class citizenry, but rather that all of them are equally legitimate and equally scholarly. But they acknowledge, in fact, that one of the cures for children with learning problems is something called early specialization. And in fact, it's unclear to me who decided, when it was decided and how it was decided, that all children need to be well rounded. It kind of smacks of mediocrity to me. But that we ought to have some specialized individuals who are permitted to specialize early in their area of affinity. Perhaps one of the most important goals of education ought to be the strengthening of preexisting strengths, so that a major challenge for schools is how are you going to strengthen the strengths of children rather than constantly evaluating them in their areas of weakness! The other point, and then I'll stop, that I think appeals sometimes to people in policy positions is if you make it clear that we're not suggesting that a group a children be let off the hook or be allowed to cop out of expectation, that in fact that we can have the expectation that all children are required to work hard and become dependable, but that they have to work in different ways. In Schools Attuned, where we work, one of the things that we've done that has been very appealing to teachers has been to encourage them to charge a price for an accommodation, which is to say when you accommodate a child in some way, ask him to do something extra in another area. "George, we know you don't write too quickly, you don't like to write so we're going to have you write a little bit less but we're going to ask you to read two extra books this year." I think people feel very good if, in trying to accommodate the different kinds of minds, we also hold those minds as accountable as anybody else in the school. These might be things that could make policy a little more palatable and still be in favor of the diversity of minds.

DICKMAN: Just a comment. In order to shorten the distance between research and practice, I think we have to also look at some of the systemic weaknesses that are built in to our laws for special education in the United States, most particularly the aptitude/achievement discrepancy formula and how that's applied by most school districts, and the requirements that students fail before they get services and the focus on curing and the going away from preventing. If we're going to bring research into the classroom into practice, we have to get our teachers and our administrators interested in preventing failure instead of curing failure.

LEVINE: Does anyone have any idea how much longer these discrepancy formulas are going to be around? I've never been anywhere where people didn't agree that they had to go, but they seem to be hanging around based upon totally absurd logic and a belief in certain tests that shouldn't be believed in. But, it's just a very interesting example of a kind of cultural drag.

THOMAS: I would like to charge all of us to work toward getting theses messages out to the public better. We need to do a better job of public awareness. We as educators, we as other professionals who are in this field, know the problems, but there are a lot of people who have not a clue about what we're talking about today. I think it is important to bring together the medical profession, the judicial profession, the educational profession, and the parent profession, so that we can ultimately have a voice united to help affect the legislation which will make this change. I know that this can happen, but it means that each one of us has to take it upon ourselves to be a part of the solution and not wait for someone else to do it.

HALLOWELL: You know, it makes me think of a story. Yesterday I gave a talk at a local school, Trinity Episcopal School, and it was an unusual talk because the audience was comprised of 400 children, kindergarten through eighth grade. If you want to see a very honest audience, that's an audience! They all file in ready to hear the lecture. I talked to them about, "What kind of brain do you have, and what do you do with the brain that you've got?" I was quite nervous about it. Could I keep these people engaged for more than a few minutes? They positively loved it. They were raising their hands, jumping out of their seats, wanting to ask questions—"What kind of brain does Madonna have and what kind of brain does Dennis Rodman have?" These are hard questions! They really got into it in a big way—the headmaster had to stop us after an hour and said the kids had to get back to class. It drove home to me the point that the business people and the theorists miss, that children, particularly little children, want to learn. Their natural proclivity is toward learning, not away from learning. It's up to the grown-ups to help them understand what kind of brain they've got and learn how to use that brain so that they can do the thing they want to do which is learn and master. They want to do this. The assumption that a lot of business models rest upon is that the worker doesn't want to work, and so the manager has to figure out some way to make him work. Well, the opposite is true with children. Children want to learn. They only turn off, give up, become disruptive when they can't, or when they feel frustrated, and that's such a key difference. If you'd seen these kids yesterday talking about their brains, a very sophisticated, neurological concept, you would have been as moved as I was. The energy in that room was spectacular. It's usually the kids: when you bring kids together—that you have a tremendous amount of positive

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energy. It's just a matter of channeling it and focusing it in a constructive way. That's where the job really should be simpler rather than more difficult.

LEVINE: I would like to move us along. We've looked in general and seem to have agreed, as Ned said, that children are anxious to learn. We've implied that there are sometimes innocent victims of a system that can be too rigid, and planning that fails to take into account individual differences. I want to move us along now to some more specific policy issues. One of the experiments that has gone on in the last few years has something called inclusion. We've now lived with it for several years and it's been marketed as a very progressive movement, namely the mainstreaming of children with learning problems such that they can get all the help that they need within regular classroom settings. I would be interested in this group's views on how that has gone; I can't remember a policy that has been more widely and graciously adopted as quickly as that one was. What do you think of the results of that experiment? Priscilla, you must have some views on that.

VAIL: I certainly do.

LEVINE: I don't know if we want to hear them, but, go ahead.

VAIL: Too bad! You've opened Pandora's box.

LEVINE: Bummer.

VAIL: Inclusion, to be done well, is an extremely expensive proposition. Inclusion, in many instances, is being pedaled as an efficient way of educating a large number of children economically. These two things are absolute opposites. Inclusion can work. In my experience and in the models that I have seen, when there is rigorous and ample teacher training, when classrooms have teacher aides and assistant teachers, as well as head teachers, when there is a very small ratio of adults to children, when there is English as a second language . . .

LEVINE: You're not saving us a lot of money

VAIL: Exactly, and every single thing I'm ticking off that is a requirement for good inclusion costs more and more money in an era when people are looking for ways to slice school budgets. So, when it is offered without the financial underpinnings, I think it is a delusion, a hoax, and a form of child abuse.

LEVINE: Well, that was nicely understated. Any other inclusionary comments? To me it's very interesting that inclusionary programs were started basically with an awful lot of the impetus from the families of children with mental retardation who wanted their kids mainstreamed, very appropriately, I think. But, it is interesting that the low severity, the learning disability parent, never really asked for that, but got swept into it by the more high severity groups. Parents of low severity, problematic children wanted some services. It's also very interesting that inclusionary models make the statement that pull-out services don't work, which is an interesting statement because it doesn't address which pull-out services don't work and which ones do. If you review the literature, for example, there is really compelling evidence that language therapy works for kids with language problems, and it's pretty uncontrovertible evidence that, in the long run, kids who have had language intervention improve in their language skills and can improve significantly academically. Are we supposed to make believe that's not true? And say, well, it's a pull-out program so it can't work? Or, might it be more honest for schools to say to the community, language therapy works, social skills treatment works, and we can't afford it. If you taxpayers want to pay more for it, you can have it. But to make believe it doesn't work by saying pull-out programs don't work is really doing an injustice. It's almost like gate keeping and an HMO, namely we're not going to tell you about language therapy because then you might make us do it. And, there are some ethical issues implicit in that. Do we have any comments from the panel?

THOMAS: I feel the same is true of pull-out programs—where is the quality in the pull-out programs? If the pull-out program has a very well-trained person, then it's good, but who is gate keeping how well those are done? This too is an ethical issue.

LEVINE: Absolutely.

THOMAS: The same as with inclusion; I can speak so well because my daughter was a victim two years of what Priscilla termed a form of child abuse in inclusion programs and pull-out programs that still did not work.

LEVINE: Alice raises the issue of quality control and a different kind of standards, called the standards of service.

ACHILLES: When you raise the question of pull-out programs, what's wrong with providing some of these services at the school site at hours other than what you and I might call the academic core?

LEVINE: That's a superb idea. Even, perhaps, charging for them—can we charge you?

ACHILLES: Absolutely—a modest fee. I'd like to comment on something that Priscilla said. Her statement that having a low adult-to-student ratio gets very close to my work on class size. I want the whole audience to know that the concept of pupil/teacher ratio as she described it and my concept of class size, that is the number of youngsters the average teacher faces daily, that those two numbers and those two ratios are not the same. They are often used interchangeably in the critics' comments on education. They'll say, "pupil/teacher ratio is low." In fact, what they are saying is that there are lots of adults in the school helping youngsters. They are not talking about the average class size. All of us in here need to know that and refute that comment when it comes up in the media and when it comes up in discussions around where we are. There is a big difference in those two terms.

VAIL: Thank you very much for saying that, and I was referring, though I misspoke . . .

LEVINE: Don't get defensive.

VAIL: No, I'm grateful. Thank you very much. That was what I meant.

DICKMAN: Obviously, the inclusion issue has a great, great many issues involved. There are a lot of false issues involved in the inclusion debate. One of the false issues is that children with disabilities, if they are included in the classroom, are going to be included in other domains in their environment, which is not true. True inclusion takes place in the hallway and on the playground and the walk home from school. It doesn't take place in the classroom where the community is captive and cannot walk away or neglect or reject the person with the disability. It is putting the focus on sensitizing the community to the needs of the individual rather than sensitizing the individual to the need to contribute effectively to the community. I have four children, one learning disabled, and one developmentally disabled. The developmentally disabled child was always excluded educationally his entire career, and he was totally included in everything that happened outside of the classroom, including the workplace and in recreation and in every other way. My learning-disabled child was included until recently and did quite well, because in his particular situation the pull-out time that he had was not considered a stigma to him. As a matter of fact, he looked upon that as an opportunity to learn . . . I remember once when he was very young, he came home and made the comment that there was this other boy in the class who was trying to get into his program but he had to pass first. And so, I say it was the administration that took the stigma out by using some of Dr. Brook's methodology and motivation that took the stigma out of being different. He was allowed to be different in the included environment—extremely important.

LEVINE: Other comments on this issue? Then I would like to move into a totally different arena of theory and policy: the issue of assessing children and what kinds of quality controls can be built into assessment. I get inundated almost every day with reports on children that people send me from around the country. I'm really astonished at how many very poor evaluations children get with kind of "pseudo-labels"—evaluations that have built-in conflicts of interest in them, where the person doing the evaluation can only see the things that she or he is trained to see. Evaluations done in school where there is a conflict of interest, namely how can a school evaluate a child without also, in a way, evaluating itself. And, so, I would like to open up some discussion of the policy implications of assessment. If we say that a child has a basic right, if he's going to be assessed, he should get a valid assessment as opposed to a one-sided, biased assessment. I would like us to address the issue of whether we should close down clinics within schools; whether the school ought to or ought not to be involved in diagnosis when it's going to do the treatment. I don't have built-in terribly strong biases. I'm only raising it as a question.

THOMAS: It comes down again to training. Who is doing it, how well are they trained, what are they trained in, how much do they know? It's the same issue that comes up with inclusion, that comes up in the regular classroom—what are we doing about properly training teachers and diagnosticians with the latest information, with the best and brightest so that we do our children a better justice, rather than using old ways, old information, halfway trained, half-baked ways of doing things?

LEVINE: So, you feel that a lot of the answers are in training? I don't think anyone would disagree with that. The real question is, once the training is done, should be there be minimum standards for evaluation when a child isn't functioning well? Shouldn't there be some agreement on what questions need to asked? To use medical terms, what conditions need to be ruled out in that individual?

BROOKS: First of all, I think too often almost every kid gets the same set of tests and we don't carefully think through what the child needs. There is a school system outside of Boston where I consulted with the school psychologist and educators. I suggested that every report begin with a section enumerating the diagnostic questions the teacher or teachers have, the diagnostic questions the parents have, and very importantly, the diagnostic questions the child has for his or her own education. The psychologists at first said, "How can we sit down with a six or seven year old and ask them?" The supervision I then did was then based on these diagnostic questions. There are some kids I have interviewed who have had ten hours of testing and yet no one has ever sat down with them to explain what the testing represented. There are parents who come in and say, "I have no idea what the words in this report mean." If from the very start, you engage people and see it as a comprehensive evaluation involving all members of the team, the parents, the kid, the school system, it will be much easier to translate it to specific educational practices in the classroom.

HALLOWELL: Let me jump in on that, both ends. The reason I exist as a private practitioner is because clinics in schools don't do their job very well. In theory, it would be wonderful, but what usually happens is that school clinics get tremendously overworked. They are used as screening devices and they are used as pseudo-disciplinary places. The kinds of evaluations that come out of them are very boiler-plate, usually very unsophisticated, and almost worse than nothing because they usually apply labels that are incorrect and recommend treatment plans or deny treatment plans that are indicated so that the child is worse off after the evaluation than he or she was before the evaluation. So, given this woeful state of most school diagnostic centers, I would do away with them all. And, because of conflict of interest, because of poor quality, because of overuse and understaffing, have them all referred to private diagnostic centers. That, of course, would cost more money but at least . . .

LEVINE: It might not.

HALLOWELL: It might not . . . and at least the job that is done would be worth doing. The way it is now, the job that is being done is worse than nothing because these kids are denied services they need and they're given diagnostic labels that they don't deserve.

LEVINE: One of the misunderstandings, by the way, that a lot of parents and teachers have, is they believe if a child has been assessed to see if he's eligible for services, that he has been evaluated. There's a big difference in having an evaluation and being assessed to see if you're eligible for services. What this results in is that if the child is deemed ineligible for services, the assumption is he has no problem—it's an attitude problem, or an emotional problem, or a problem at home.

HALLOWELL: And, I can't tell you how often I see an eighth grader or a twelfeth grader and I ask the parents the questions, "Why didn't you come to see me in first grade?" and they say, "Oh, well, he was assessed back in first grade and they told us there was no problem." So, once that verdict has been passed, it takes years for it to be challenged again, as if it were written in stone. When they come to see me years later, not only is there something wrong, but all kinds of bad things have happened because the initial assessment was inaccurate.

BROOKS: But you know, that's not a question. I've really got to jump in. We have to be careful that we don't attack people who work in schools.

HALLOWELL: I'm not attacking people who work in schools. . . .

BROOKS: I'm not saying you are, Ned, I'm just saying . . .

LEVINE: The purpose of this panel is to attack all people?

BROOKS: Okay . . . well, I think some of the "abuse" I've heard today is ridiculous. What I want to bring up that I have read reports from private clinics, from private practitioners which were miserable. I read one report by a well-known private clinician that was fifteen pages long. There were more reading tests than I ever knew existed, and when I saw the recommendations, what one teacher said is, "What does this mean?" To me it's not an issue so much of whether you test the kid in the school or test the kid in a private clinic: the issue is whether people can honestly ask themselves, "What are we assessing for, do we have the best interest of the child, teacher, and parents in mind, what is realistic, what are the recommendations that we'll follow from this?" I bring this up because I've been to schools where I think there are wonderful, wonderful assessors.

HALLOWELL: Bob, come on now, that's a distinct minority. Now, tell the truth. Any school that is smart enough to invite Bob. . . .

BROOKS: Now, wait a second. I really get concerned that we get into a we-they attitude.

LEVINE: We're going to open it up to the audience later.

BROOKS: Okay. I took a survey. They all agree with me.

HALLOWELL: Okay.

BROOKS: I'll tell you why I responded so quickly. I want to tell you about one of the biggest failures of my life. I went into a school with all my wonderful strategies for one of my patients and a teacher said to me, "You know what your philosophy is, Dr. Brooks? Your philosophy is to spoil children." The toughest time to be empathic is when someone has just said something like that. I got so angry. I told her what I thought her philosophy was. I had four school meetings, and every one was worse than the one before and one person really, really suffered, and that was the child. I swore to myself at that moment, we've got to be careful. To me it's not an issue of where the testing takes place. I have met some very, very fine assessors in schools; I've met some terrible assessors in private clinics. I just want to be careful we don't get into a we/they kind of. . . .

HALLOWELL: Absolutely . . . let me just finish up on that. . . . I mean, I totally, totally agree with you that what matters is quality assessment, absolutely. It has been my experience that most school clinics are so overcrowded that it's impossible for them to do a quality job. It's not a we-they sort of thing. If I had to evaluate 100 kids a week, I couldn't do a quality job. It's sort of like coming back to classroom size. I completely agree the most practical, useful educational reform in this country today is simply reduction in classroom size; nothing else is going to make a difference until that happens.

HALLOWELL: I'd say the same thing about clinic size. If you've got a clinic that's being asked to evaluate 100 kids a week, I don't care how good the people are, it just can't be done. My own daughter was evaluated in her school when she was in first grade for a learning problem. Now, because the size of the clinic there is very small and the numbers are very well controlled, they did a beautiful job and her reading problem was taken care of in a year. Done beautifully.

DICKMAN: My job as an advocate is to evaluate evaluations. Essentially, that is what I do virtually every day. One of the things that I've found is, I agree with Robert, I don't see any major difference between the private evaluations and the educational evaluation, except in the number of pages that are included in the evaluation. All the evaluations I see are diagnosing the disability, versus diagnosing the child. I think that one of the main problems is this idea that evaluations have to find a particular generic type of learning disability or whatever. This is a kind of a conservation of diagnosis-attitude: "He is this, but he's not that." The other thing is that every evaluation that I see contains observations, leading up to a diagnosis and stops. The things that are most helpful to parents, most helpful to schools, is a discussion concerning the manifestations of those deficits that are discovered by the testing that is being done by the evaluators. Without discussing what an auditory figure-ground discrimination problem means and how it affects the child in each domain of its environment, we can't really meet the needs of that child. A child who is having memory problems and storage retrieval, or whatever, if it was explained to the parents exactly what that means in terms of how the child is going to interact at home, with friends, in the school, in the play yard, etc., it would make so much greater a difference. Another thing is the basic evaluation that is done is like getting a general idea of the child's needs; we need a second level of evaluation that allows us to focus on those particular areas of deficit, not just the generalized area of weakness without understanding exactly the parameters of that particular area of weakness so that we can focus on it specifically at home and in school.

LEVINE: I agree, the ability to link the specific findings to the phenomena that you're saying, "How is this affecting math, how is this affecting reading, how is this affecting behavior," and then what are the management implications with that.

DICKMAN: And how is it affecting dinnertime.

LEVINE: How is it affecting dinnertime . . . that's right.

THOMAS: And, at the same time, measuring the strengths of the child and talking about how can we build those up and how can we use them effectively as we're working on remediation of whatever the problem is. Too often we only look at what's wrong; we don't look at what's right about a child.

LEVINE: I think all of these are astute observations but, to keep it on a policy level, one of the big issues is parents and how parents can be good consumers of evaluations. How parents can evaluate the evaluations as you do, and how parents can even evaluate the evaluators of evaluations. How do they evaluate you, for example, to make sure that your evaluation of the evaluations has been properly evaluated?

DICKMAN: Could you repeat that? I tell my clients that attorneys, psychologists, and evaluators are like buying a pair of shoes—if they hurt when you first put them on, go on to another pair right away. Consumers of the kind of services we provide generally feel that they go to the first attorney they see that's got an expertise in an area, the first psychologist they see, the first educator they see, is an expert and it's going to work well with them. That's not always the case.

LEVINE: I'm really pleased he left pediatrics out.

DICKMAN: Pediatricians.

HALLOWELL: Just to underline that. I feel very strongly about this because I see so many kids who were evaluated in first grade and then I don't see them again until eighth grade and tremendous damage has been done. If your evaluation doesn't fit, as you said, if your child continues to hurt, get another opinion. It doesn't hurt to get another opinion. Getting that second opinion may make a tremendous amount of difference.

VAIL: You see people who come to you who have continued to hurt. I, from my school-based work, see the results of sensitive, good screening; prevention is always easier than remediation. I see the kids whose difficulties have been highlighted, who have been given the help that they need, who never knew that they were in trouble and have gone on to feel good about themselves and good about their schoolwork. So, I think that some excellent and very sensitive in-depth work is being done in schools, and sometimes it's easier to take the step of helping when the evaluation is done inside the school where people understand the curriculum and the personnel are available to help.

LEVINE: Any other comments on the assessment issue? I think it's an issue of quality control, especially when it comes to parents knowing whom to believe and knowing when their questions have been answered or not been answered, and feeling certain that somehow the evaluation is providing them with enough practical recommendations and that those recommendations follow from the observations. The other thing parents need to be looking for as well as schools, is evaluations that are as freed up as possible from conflicts of interest, and strong disciplinary biases. I guess we could call it objectivity. When I was in Boston at the Children's Hospital, we used to joke around that when we sent a kid out for an evaluation to a specialist, you didn't really have to open the envelope. You looked at the return address and you knew what the diagnosis was going to be. The people who loved depression thought everybody was depressed and the ADD industry thought everybody had ADD. Basically, people were diagnosing their disciplinary biases and found their own training and current interests reflected in every child that walked in. How do you protect parents from that? How do you protect kids from that? This is a policy issue, in my opinion. I think it would be very good for someone to put out some guidelines for parents on becoming evaluators of evaluations and knowing how to pick out those little traps that exist.

LEVINE: I'd like to move along now to another related topic, one that is equally controversial: the whole issue of labeling kids and the pros and cons of labels. Some of you may know that I have an extreme view on this. I've just about totally repudiated labels of any kind in my dealings with children. I have many, many kids that I interact with who have social skills difficulties and not one of them has Asperger's syndrome, and not one of them will ever have Asperger's syndrome, coming out of our center. In fact, I warn parents about it. I say, "Be careful about it" because I don't think that's terribly helpful to be told that you have a particular syndrome, especially when there's no really substantial evidence that the syndrome exists. I would like the views of other panel members, perhaps some of you who take pleasure in labeling kids could present the other side.

HALLOWELL: I don't take pleasure in labeling children, but I do think diagnosis can help and by diagnosis I mean collecting target symptoms. In other words, what is getting in this child's way and what does this child have working in his or her favor? And, as long as you stick with target symptoms, I think you're on safe ground. When you make that leap into these abstract entities that have people's names associated with them, that's when the confusion begins. In this field of educational and psychiatric diagnosis, we have almost no foolproof test for any condition. You can't prove someone is depressed, you can't prove someone has ADD, you can't prove someone is autistic, you can't prove someone is manic depressive, you can't prove someone has dyslexia. You can't *prove* by an absolute foolproof test any of these diagnostic labels. So what you have to do as a safeguard against that is stick with target symptoms. What is this child having trouble with, what does this child do well, and what can we do to make the situation better?

LEVINE: And, let's not spend a lot of time trying to figure out what to call them.

DICKMAN: As an advocate, labels are very helpful to me. Labels are very helpful because they allow me to be able to communicate relatively effectively with schools districts; an example would be dyslexia. Before we had a convergence of research on identifying the finite type of dyslexic pupil, it was extremely difficult to talk about a child who was dyslexic to a school district in my part of the country without getting, "There's no such thing as that," etc. No one was focusing in on methodology or diagnosis. Now that we have a convergence of research in the area, because of a common understanding of what a dyslexic pupil may be or the profile that prototype is, we can communicate effectively with educators in order to try to get research-based remediation in the classroom.

LEVINE: I think you can communicate just as effectively without having a kid grow up saying, "I'm a dyslexic kid," by saying this is a kid having a lot of trouble with language sounds, the way someone might be visually having difficulty seeing or hearing but using a profile approach without the stigma of the labels.

DICKMAN: You and I can, but the school districts that I deal with are much more into communicating rapidly, in terms of what they need to get a quick understanding of what they're talking about.

THOMAS: Sometimes in that rapid pace, we get too simplistic, and because of a lack of true education about what that label does encompass, misinformation is passed along rather than good information. I disown the words *learning disabled*. I do not want any child labeled "not able to learn"; every child can learn. By saying they are disabled, we are saying they are not capable. On the other hand, if a child has a convergent retrieval memory problem, we know how to work specifically with that. When we say learning disabled, it's likely to lead to, "So, what else, what does that mean?" It's like saying a child has a fever, it's like driving into a car garage and saying, "I have car trouble." What *is* the car trouble? What *is* the problem underneath that so that we can work better with the child?

LEVINE: I would agree with that. I would argue that the term *dyslexia* isn't specific enough. There are a lot of different kinds of reading problems and we can get to a greater level of specificity, at least Priscilla can.

VAIL: I would like to tell you about nearly being fired twice in one week. It doesn't usually happen every week. It was the middle of the winter and we had done some assessments with our kindergartners and first graders. There was one kid who was highly at risk. We got the parents in. We had a parent conference and I said, "These are the things your child does really well and here are some places in which your child has difficulty." I laid out descriptions and examples and, then I said, "This is what we're going to do about this at school and here is what you could do at home. Let's meet again in another six weeks." The next morning, the administrator came down the hall. I could her coming to my room. She said, "That family just called; they want your head." And I said, "Why?" The father went back to his office and was describing to the person in the next office what we had said about his kid, and the person in the next office said, "Oh, your kid's got 'slydexia'. How come that woman in the school has never heard of 'slydexia', that's all your kid has, your kid is 'slydexic' (dyslexic)". He said, "That woman has no business being in schools if she's never heard of 'slydexia'." So, the next week I had another parent conference and I said, "These are the things your child does very well, these are the areas in which your child has trouble. Let me show you a few examples. This is what we're going to do in school, this is what you can do at home, and, by the way, some people use to describe this collection of proclivities and difficulties the term 'dyslexia' or 'the dyslexias', which may be more accurate. Next morning, head came down. She said, "The father called and said, 'Get rid of the woman because my wife went home and cried all day saying how can they tell me my child has a fatal illness'." So, there you are, damned if you do, and damned if you don't. But I think that it's only a kindness to offer out a label so that parents know what it is.

LEVINE: I think that the phenomenology almost defeats the labels. If someone is having attentional difficulty, is that the same as having ADD? Where do you draw the line? If someone has organizational problems, is that a learning disability, or is that not a learning disability? You get into such arbitrary line drawing for which you'll never have any standards that maybe we should retreat and become phenomenologists and say, "This person is having a lot of difficulty with certain aspects of attention, what Ned called 'target symptoms' and has the following strengths and the following associated weaknesses," such that no two people are quite alike. We can truly individualize our approach to that jagged edge in that individual. Any other comments?

DICKMAN: I just want to give an example of . . .

LEVINE: The defense is summarizing its case.

DICKMAN: Yes, yes, I just want to give an example of some times what a label means to a parent. This was not a case involving a learning disability. Parents came with their child. The child was in my waiting area. As I passed through the room, I looked at the child and the child had some recognizable, visual stigmata that, because I have been dealing with people with disabilities for so many years, I recognized. The child was about nine or ten years old. I came into my office. The parents started telling me about their problems and difficulties with the child. They had high expectations for the child and the child was performing at a very low rate. Nowhere during the first forty-five minutes did they mention the diagnosis that I had assumed was accurate when I just briefly walked through my outer room. These parents were in tremendous turmoil. They had no idea what to expect in terms of the long-term development of their child. I, obviously, I'm an attorney, I didn't diagnose the child in my office, but I did recommend that they have an additional evaluation. I called up the doctor ahead of time, a pediatrician in the area and I asked him to please consider ruling out Williams Syndrome. Williams Syndrome is a label, but it was a diagnosis that turned out to be accurate. The next time I saw those par-

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ents, they had heard some things about their child that were difficult for them to hear; however, they had adjusted their expectations for their child, they had contacted organizations of other parents who had support groups and they had come to a level of peace concerning what they were going to do for their child. In that case, the label was extremely meaningful for that family and their ability to cope with the child that had a significant disability.

LEVINE: Does someone want to make a distinction here? Between Williams Syndrome and ADD? . . . I don't mean a medical distinction. I mean, whether the label means the same thing in both cases.

DICKMAN: I agree that ADD is not an appropriate label.

HALLOWELL: I think that ADD is an appropriate label and I think that Williams Syndrome is too. My hunch is we all basically agree on this point that, as long as both people using the diagnostic term agree on what they're talking about, diagnostic terms are a wonderful shorthand and they are very therapeutic. When you can say, I can't tell you how many people in my office, when they hear a description of ADD, say, "My goodness, you mean there's a name for that?" It's very relieving just to know that there is such a collection of symptoms that can be consumed under one heading and given a diagnostic term. As long as both people involved in the transaction understand the meaning of that shorthand, it's not only convenient; it's therapeutic. The problems develop when one member of the conversation doesn't understand the meaning of the shorthand term; that's when these "labels" become dangerous because one person thinks ADD means psychotic, another person thinks Williams Syndrome means your kidneys don't work. There is tremendous confusion when people start talking fast in terms of, "Are we talking from the same database?" I think you'd probably agree with me on this, that we want to make sure that we define our terms and both members of the conversation understand those definitions before we go ahead and start using them.

LEVINE: I would also like to make a distinction between a medical diagnosis, like Williams Syndrome, and a collection like functions that are put together and made into, what I would consider a pseudo-syndrome, a group of symptoms that happen to occur very frequently together that become a syndrome because you see them a lot together but, unfortunately, you see a lot of everything together, and, I mean we could say that there is a syndrome of allergies plus learning disorders called Hallowell Syndrome because a lot of people with learning disorders have allergies. So, why not make that a syndrome? And a sub-syndrome are the people with blond hair who have allergies and learning disorders. I could report on 200 such cases within each syndrome. I think Williams Syndrome is a very definite medical entity with some anatomical and physiological properties and it has implications for medical treatment, and I think that's very different from Asperger's Syndrome or non-verbal learning disability, or people who are just pulled together in a cluster somewhat arbitrarily.

DICKMAN: The difference is true but the point was that the label was used to communicate and the ability to communicate had a positive impact on this particular family.

LEVINE: Right, right.

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DICKMAN: With the symptom complex. I think that's what some people are using now for attention deficit disorder. It's very hard to communicate, even with a diagnosis.

LEVINE: Right, and it implies that if you've seen one, you've seen them all. Let's move on now. We're going to open it up to the audience so that perhaps, while we're dealing with the next issue, you could be tuning us out and thinking of questions you want to ask. The next thing I wanted to bring up as a policy issue was alluded to a little bit earlier. It was mentioned that first and second graders want so much to learn and are so eager. Then they come to Hallowell in eighth grade and they seem to have been wiped out, they also come to me in eighth grade and, as some of you know, I don't like eighth graders. I find them intimidating and they don't give me the reinforcement I need. You can sit in your office and reassure an eighth grader and demystify him and be so sensitive and so supportive of that kid, and then you say, "Do you have any questions?" . . . and he said, "Yea, can I leave now? . . . or "What time is it?" It's not rewarding. But I've also had the experience myself in the public schools of walking through an elementary school and absolutely just feeling so positively towards the kids as they go in the corridors and, that afternoon, in the same town I walk through the middle school and watch what's going on in front of the lockers and I can't wait to leave. Something happens in late elementary that probably has policy implications called "Something's going wrong with a lot of kids in and around the time of puberty". And policy-wise, are we addressing the needs of that age group sufficiently? It seems to be a major turning point and a major wellspring and a major downfall for an awful lot of vulnerable kids who become also irreversibly damaged by ninth grade. Should we be looking at educational readiness in sixth grade, or all sixth graders? Should we be reforming the way middle schools work? Or the way late elementary school works? Where's the lesion, and what kinds of policy could evolve to make that transition work better for more kids?

DICKMAN: Make the principal in elementary school graduate with the kids to middle school . . .

LEVINE: Meaning he goes on to middle school with the students?

DICKMAN: Right . . . he'd prepare them better for middle school, believe me.

LEVINE: Right . . . that's interesting.

BROOKS: I think part of the issue is, for junior high especially, the kids have many more teachers to relate with, many schools, and it gets to the whole issue of class size. Many schools become much more impersonal. It is interesting to me how many junior high and high school teachers will take some of the ideas and say, "It's much easier for an elementary school teacher to use some of your ideas." If schools were restructured, there should be no difference, there really should not. Sizer talked about it in one of his articles. A high school in California had a lot of violence and a lot of drop-outs. What they did is they broke up into smaller units as many people know that some schools will do. It was a funny article because he said one of the factors was things were so impersonal at the junior and high school level, when they broke up into smaller units, all of a sudden the attendance rose dramatically, achievement scores rose. But the school was always based on at least one-third of the students being truant, so then they faced the problem of too many students there at one point. One of the things Sizer argued for in that article was it's not so much an issue of just whether it's middle school or high school, it's more an issue of what is the contact between the teacher and the student. When I interview students, they said two of the most important things for feeling welcome is having someone who greets me with my name and someone who will smile at me in the morning. And once that happens, there's a better atmosphere.

LEVINE: I would like to mention just one other issue which is the enormous change in the central nervous system with children at that age. Also, the even more dramatic change in the impositions on those nervous systems, where all of a sudden, at about age twelve, there is much more memory involved, much more focused attention, the higher language with many more materials at a more abstract level, the explosion of decontextualized detail that occurs at about eleven or twelve in school, and also the increased demands for output and productivity and organizational skill. So, in a way, it's a whole different ball game when you get to that age, and yet our society doesn't address the issue of how prepared are kids for those enormous changes in cognitive demands, at that point.

THOMAS: Mel, there's a school in New Orleans, Gregory Junior High School, where two years ago the principal redesigned how that school was structured. He put kids into families—schools within a school—where the same five teachers taught the same group of kids all day long. Students related well when they broke into these groups called families. Within two years, this school, where only 50 percent of the children were passing the Louisiana Educational Assessment Test, called LEAP, rose to over 90 percent passing it. I think it was personal contact.

BROOKS: You see, Mel, I think the very things you mentioned, if anything, demand closer contact with the students, demand a teacher understand even more the individual learning styles of each student. So I would just argue, given all the things you mentioned, if anything, we move toward a more personal model of education. We have to ensure it becomes even more personal, as personal as it was in elementary school.

LEVINE: Well, there's a lot of room for innovation at that level and for really reviewing our policy toward that particular age group. I want to mention just one final issue. Our president has said that every kid in this country has a right to go to college, or its equivalent, and we should provide the funding for that. At the same time, drop-out rates in college are increasing dramatically, and it's never been entirely clear to me what college is for anyway. I have a whole lot of students coming to see me in their senior year of college saying, "Well, I've been in college for four years and I'm about to get out and I really don't know anything and I really can't do anything," and yet so much of our educational system and secondary school and primary school consists of a structure where every teacher is preparing kids for what's coming next and the ultimate next is college or its equivalent. It's pretty easy to say everybody should go to college, but what's so good about college, and what kind of track record do colleges have for understanding a large number of kids who go to college and are really unready for college? College readiness is another huge issue.

ACHILLES: I was waiting for that. I'd like to take the position that education should be a personal business. As we've heard the discussion here all morning, we've talked about moving youngsters to continuously bigger units, from the elementary school to the middle school it gets bigger, from the middle school to the high school and it gets bigger, from the high school to the college and it gets bigger, and I, for the life of me, can't understand why we don't understand that education is a personal event and it needs to continue to be a small thing, not a big thing. The only place in college where I see it get small is at the very end, if you end at the seminars at the graduate level. I see these huge lecture halls as we have here, but it's so important at every level to maintain the individual contact. The President wants people to have the right to go to college; I think that's fine. If he wants to make some funds available for that, I think that's fine. I think we need to realize that the continuation of people getting into bigger and bigger units is not going to help much.

LEVINE: You know, it's interesting, so many of my patients, when I talk to them about college, say that they want to go to a big college. I don't know if you find that and I keep trying to turn them toward a smaller setting, and they resist it.

ACHILLES: If they want to go someplace where there's a good athletic program, they're going to have to go most of the time to a big college.

LEVINE: I think the bigger colleges offer most opportunities for drinking, too!

ACHILLES: Well, they're often located in big, urban areas where you can get away with it more!

LEVINE: That's what I mean.

HALLOWELL: I want to underline what you've said because I think it's so eloquently simple and so obviously right. If we want to significantly change and implement all these theories about learning styles and understanding your mind and what-not, we've got to start by reducing classroom size. It's so clear, and that's going to cost money. We ought to invest it instead of building more prisons; we ought to be building more schools and hiring more teachers, and the rest will naturally follow suit. When you have small classroom size, you can have personal learning, you can have mentoring, you can have that relationship, you can have individualized teaching; you can't have that in a lecture hall with 100 students . . . it's simply impossible. On the other hand, at the college I went to, I had a professor one-on-one for two years; they have this thing called a tutorial system. My junior and senior year, I sat one-on-one with this professor and talked about English Literature. It was one of the most exciting experiences of my educational career. That is personal learning. That man changed my life; it can happen in college, it can happen in high school, it *does* happen in first grade usually. I applaud what you're saying because it's so simple and practical and do-able and right.

ACHILLES: I want to make a comment here. I cannot let your comment go unanswered. We're talking here a little bit about policy and, as some of you know, I've been doing a lot of work on the class size reduction issue and invariably cost gets involved. A small school with which I am very familiar in Winston-Salem, North Carolina, called the Downtown School, has one teacher for every fourteen children. The per pupil expenditure in that school is precisely the same as it is in every other school in that system. The myth that small class size costs more money has got to be dispelled. The following things happen positively with small class sizes that reduce costs later: 1) the very inhumane practice of retention in grade almost disappears; 2) we have the opportunity for early identification of students who are in trouble in getting them into the appropriate remediation steps. As Priscilla so nicely said, prevention is a lot more efficient than remediation. 3) We find that the individual teacher bonds with the children and the children begin to learn as a unit and begin to learn the necessity of teamwork and how group dynamics occur. I could go on and on. We have some longitudinal studies that are showing us that reducing class size in the early grades eventually saves the school district money by about grade seven.

BROOKS: I want to reinforce something that Chuck said. About eight years ago, the Massachusetts Department of Education did a study of at-risk programs and programs to help keep kids from dropping out. Can anyone guess what the most important ingredient for success in any at risk program was?

ACHILLES: Small classes.

BROOKS: It was actually one person in the school who the kid felt believed in him. It gets to what I mentioned yesterday about that charismatic person in the school who is like a mentor, and it's what people have been saying, who believed in them, showed a personal interest in them, met with them even every day for five minutes to find out how they were doing. You could look at a lot of the other areas, but that was the most important thing as they looked at different programs. But, you know, it makes sense that when you feel you're welcome in a school and you belong, when you feel there is someone who cares about you, who will hold you accountable and responsible, then you are much more likely to feel welcome in that building and much more likely to be there.

LEVINE: Okay, I have to open it up to audience questions at this point; we're at exactly the twenty-minute mark. There is a microphone back there so that you can come and pose these issues, or offer comments. Yes . . . could you tell who you are when you ask a question because that way we'll be careful not to give an insulting response. Right?

AUDIENCE: Sandra Williams, a general pediatrician near Houston. The big issues that we've been talking about, to me, are quality of control and how do we assess it and how can we improve the general level of education of each child in our country. We talked about that we are getting Internet access in every school across the country. If we can actually get that volume, I think there would be a challenge to help us develop a national teacher-education plan so that they learn the same kinds of things that we've been talking about here in terms of teaching them about learning, assessing them, if we start here and work on it, it can be done. I'd like to suggest a national award fund that we have a reward for the hour that they take a week at school to give additional education. The education should be geared for general educational things as well as individual grades; it should always be accompanied by practical application points and then getting back to the assessment issues. We want to be able to assess ourselves and show them how to assess themselves to get that issue solidified in school. Does that make sense?

LEVINE: Does anyone want to comment on that? Particularly on teacher training, which I think will be discussed in more detail later. And on the requirement or stipend for teacher training. Anyone in the audience can add to that, or subtract from that, or multiply that.

ACHILLES: I'll take a comment here on one part of that. I know we have a panel on this later. Most of the graduate teacher training programs are constrained badly by the notion that the teacher works all day and then comes to a class at night on the university campus with very little relationship with what goes on in the classroom. This is a serious problem and until the colleges and universities can find a way to provide those services at times when the teachers aren't absolutely dog-tired from working all day, we're going to have a tremendous slippage in the efficacy of those classes. So, that point needs addressing.

AUDIENCE: Yes, a quick comment about the standards discussion earlier on, Mel. I think that if the term *standard* and the rhetorical use of it is a political campaign, then the discussion was right on. But I think the teachers in the audience would say that wasn't a complete . . . notion of standards, and that, for example, the National Council for Teachers of Mathematics Standards has its own set of standards. So, I think this group is a good one to start with for people to say, "What do you mean by standards? What makes sense in the classroom?" Let's preserve that sense of standards and challenge the generalized political notion of standards. This is the audience to say, while we're at it, what about dealing with the learning differences? Do the standards as they're expressed and as they're handed down to districts and to schools, do they make sense?

LEVINE: That's a great comment.

HALLOWELL: It's a wonderful comment to underscore the differences between the rhetoric and the educators' use of it. It's why public education is so important. John Silber, the president of Boston University, said, "Learning disability is just a fancy word for stupid." That's what the great mass of people out there are still laboring under. And, so when the word *standard* comes along and is used rhetorically, it's a cover for "Let's get rid of these stupid kids," you know and send them out to jail . . . or wherever they want to go. Speaking of jail, I just hope you've all heard Judge Admire's program. Is it possible for you to just comment on that, so that those who in the audience haven't heard what you've done out there can hear it?

ADMIRE: We have a program in Washington State where all people who have been convicted and placed on probation and are found more likely than not to have learning disability are placed in our program. Right now it shows over a two-year period that we've had over a 40 percent reduction in recidivism at this time.

ACHILLES: I'd like to make a pitch for Bob Wimpelberg to continue to support the notion that the standard for elementary grades should be no more than 14–15 youngsters per teacher. That's the kind of standard I like.

LEVINE: Well, I think the other point you made that's so important is so often the term *academic standard* becomes equated with competency testing and you're saying there's something much meatier in it than that . . . that it's qualitative not just quantitative.

AUDIENCE: . . . There is also a lot of peer training for parents of children with ADD working with a developmental pediatrician. A key piece that I see as missing, teacher education goes back to what Dr. Hallowell was talking about as the social disconnectedness we have developed over a number of years. We don't have any real good connection to the parents of these children on a consistent basis. Getting businesses involved by saying, "I'm willing to pay for this person to be out two days per year to go and visit their child's school and spend the day there with them." I've talked to parents about that and they'll say, "Well, I can't get off of work, I can't afford it." I think we're missing a key point. That disconnection many times is a big key. I think having or requiring some kind of parenting classes or somehow the parent getting involved in the child's education is the key to where we need to move policy.

AUDIENCE: I'm a pediatrician and I have three quick comments going from micro to macro. First, when I demystify parents, I usually start by saying, "If anything I say doesn't sound like I'm talking about your child, please tell me and let me clarify that," because when we demystify we should be tying up ends which the parents think they have seen but couldn't quite understand. If it sounds to a parent like we're talking about someone else's child, something is wrong with our analogy and we need to go back and rethink. Number two: When I talk to middle schoolers on up, I demystify for them with the parents listening and stop after two or three statements and ask them to paraphrase, to make sure they've understood what I'm saying to them. When I tell this to the students, I say, "When I'm asking you to paraphrase, it's not to make sure you heard me, it's to make sure I've been clear," so I try to take them off the hook. Although I love phenomonology and hate labels, let me tell you, Mel, developmental delay syndrome has gotten me more services for more kids because it's a pseudo-constellation. Labels have gotten me more accommodations for more kids than some type of paragraph with good phenomonology. Number three: My macro statement is I think we're aiming a little bit too low in the policy issue; I think part of our problem is that we have a society that doesn't value children. We do not pay gratification to people who do. We see four-stars as people who belong on the front page of *U.S. News and World Report*, and not the teacher of the year. We need to be asking President Clinton, instead of talking about having every child go to college, about teaching us how to value our children and how to understand that they are the future and if we don't invest in them then we are a sociological dead-end and that's where policy needs to begin so we're not picking at tinier and tinier pieces of the GNP for our children as we watch the super sports stars having more and more obscene amounts of money to get into trouble with.

LEVINE: Thank you for your unbiased comments. Other there, yes.

AUDIENCE: I would like to state one thing. As an elected official, I have to deal with budgets and obtaining money, though I'm supposedly a separate but equal branch of government. I have to deal with the executive as well as the legislative branches. I can tell you one thing I've heard is about how much everything costs to do it right. From my perspective, if you want to convince people to change, you've got to be able to show them how much it's going to cost if you don't do it. That's what they see. Remember, many of these legislatures are in for the short run and they want to be able to go back to their legislative district and say "This is what I've done now" and that in many times forecloses a long-range look. But, if you give them the statistics of what it's going to cost because they haven't done it, that's something they can sell.

LEVINE: Glenda.

AUDIENCE: My name is Glenda Thorne. I am the psychologist and clinical director at CDL. I would like to make a comment about labels. I agree with Priscilla that the use of labels can be a "damned if you do, damned if you don't" situation. I also think many times the use of labels for a child can be damning and the use of no label for this particular child can also be damaging. At CDL we avoid labels, where possible. I share with parents my philosophy about terms such as *disorder* and will not, will not use the word *disabled*. I discuss the pros and cons of labeling with the parents, why they might need them, why they might not want to use them, and then really the decision is left to them. Do you want the label or do you not want the label? However, an evaluation never stops with a label. The purpose of an evaluation is not to diagnosis or clarification. It is to identify the problem. So, when we use a label, we also need to describe the child's problems and then to go on to make recommendations about what we can do for the problems. One thing that labels have done is they are often a catalyst for research. We know much more about attention deficit than we used to because of the label and, finally, I want to say that I have two sons who are in their early twenties. The label of attention deficit disorder or attention deficit hyperactivity disorder would have been much kinder than many of the labels that they were given.

LEVINE: I want to mention, if I could clarify, that the research on so-called ADD is a total mess, that studies are just not reapplicable. Everyone comes out with different findings, and I think it's because they're studying a pseudo-syndrome and an incredibly heterogeneous group of kids. At the turn of century, one of the most popular diagnoses in pediatrics is something called pseudoleukemia and it occupied about a third of every pediatrics textbook in the last millennium. It turned out to be a mixture of leukemia and leukocytosis—they had just started doing white counts then and they thought it was all one thing. And, so enormous amounts of research were done on a condition that didn't exist, that was really a collection of multiple other things. So I believe that research can get set back by labels, particularly when people's academic careers are totally dependent on maintaining the label, the way it was ten years ago. Because you're doing longitudinal research.

HALLOWELL: Let me just say something about that because I'm sort of associated with ADD.

LEVINE: But you have so many strengths.

HALLOWELL: Not only do I have it, I write it. I'm not a researcher in the field, I'm a phenomonologist in the field, and I quite agree the research right now is spread in many different directions. Whatever we can say, it's sort of like the blind man describing the elephant. Something's going on here, it's hard to say what it is, why it is, where it comes from but, my goodness, I can tell you, having dealt with an awful lot of people, something's going on here and we're getting more and more information that are beginning to help these blind men describe, and it's probably going to turn out to be a herd of elephants, not one elephant. It's probably going to turn out to be many different conditions, not one condition, but there's something we're all trying to describe that isn't simply smoke and mirrors. There's something these people are struggling with, have struggled and finding out about it makes a profound difference in their lives. So, the fact that we're having trouble defining, the fact that we're having trouble pinning it down in terms of what it is, where it comes from, shouldn't distract us from the fact that there is something happening here and that we're

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able to talk about it more articulately than we were twenty-five years ago, is a major leap ahead.

LEVINE: Ned, I think that attention is a vital function but I really can't see us saying that a certain kid has language deficit disorder, another one has gross motor deficit disorder, someone else has FMDD, someone else has social skills deficit disorder—that attention and the complex of functions that make up attention are vital; then to say that somebody has weaknesses of attention to me is all the world different from saying someone has ADD. Because once we . . .

HALLOWELL: I don't even think it's weaknesses of attention, differences of attention . . .

LEVINE: Once we put the "DD" onto every weakness that everybody has and, syndromize everything . . . I don't know why attention ever got the privileged status, whereas other functions have not been permitted to become syndromes . . .

HALLOWELL: I don't see it as a disorder. I see it as a trait. In fact, I'm fond of saying that people who don't have it have attention surplus disorder. You can't get them off the topic, and they should all go work in bureaucracy somewhere.

LEVINE: Yes, they're too bottom-up. Let's do one more . . . audience

AUDIENCE: My comment is about this whole area of learning disability, assessment, and achievement. Every child should be able to learn to his capacity or schools are not doing their job. My real question, though is, the place of the family physician, the pediatrician who sees these children from birth all the way up usually until adulthood. What is his/her role? I have found it very difficult to get accurate information from primary care physicians. I find there is so much disinformation and misinformation amongst my colleagues about this whole area of learning, attention deficits, etc., that they just completely brush it under the carpet. I cannot tell you how many kids I have seen in the fifth and sixth grade who are having difficulty whose pediatrician said, "Don't worry about it, he'll outgrow it, there's nothing really wrong." How do we get to the American Academy of Pediatrics to give us a policy statement on this subject to train our pediatricians and family practitioners as to what is going on with our youth? Our death rate for kids killing themselves and killing each other is much higher than the AIDS death rate. We're spending far too little attention in the medical profession with this issue.

LEVINE: As a pediatrician, let me say that you're preaching to the choir. Let me also mention that it's very difficult to get this material meaningfully into the curriculum for interns and residents because most of the department chairmen don't know anything about it and don't have a lot of sympathy for it. They're trained in neonatology, infectious diseases, and this stuff doesn't make a lot of sense to them. The other problem is that interns and residents working in this area are not generating much revenue for the hospital, whereas when they work in the intensive care unit, they can also be bringing in big dollars to a hospital. The other thing is that Mel Levine gives a lecture at grand rounds at a hospital, the only interns and residents who show up are the ones with difficulty reading the schedules and they thought it was an infectious disease grand rounds. They set off their beepers artificially so they can leave. The American Academy of Pediatrics has told me that I'm their single biggest draw at a con-

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ference course in the country, which is to say that pediatricians who are already in practice want very much to learn this. Interns, residents, and medical students do not as a group want to learn this very much, with exceptions. And so, what's really needed is a major push on professional development for physicians, and it's not just the usual course that puts on a slide of the DSM criteria, such as they are, and tells you what dose of Ritalin to use and how to use Cylert if Ritalin doesn't work and how to go from there into Prozac. That's the usual course that's being given now on learning. What pediatricians need is a course on the development of school-aged children and deviations and variations in that development. They need background knowledge so that they can do what we've always done, which is know the differential diagnosis of everything. So, if the kid doesn't hand in homework in sixth grade, what are the different things you need to think about that could be the reasons for that, and what are some of the management approaches and collaborative activities? We just haven't been able to figure out how to develop the training programs for pediatricians. Then the other major problem that I hear from physicians whom I have trained all over the United States, is, Mel, this is good stuff, this is probably the most important thing we can do, but we have no way of getting paid to do it. Namely, managed care and health insurance doesn't want to reimburse us for being involved with these problems. That's a major barrier that I think the Academy should deal with as well.

AUDIENCE: I'm a parent and my child was evaluated and diagnosed as ADD. My question is, one day she came home to me in second grade crying and said, "Mommy, please teach me how to read." Well, I thought my child knew how to read but I realized she was memorizing words. So, my question is about whole language and phonics and what whole language really is supposed to take the place of phonics, because I realized once she learned phonics, then she could read. So, please somebody, give me some information or some comment on that research.

LEVINE: Priscilla, you have 15 seconds.

VAIL: I have an hour and a half, you say? All right. Fifteen seconds . . . Language is made both of structure and of texture. Kids need instruction in both aspects. They need instruction in the texture of language to absorb the beauty of literature and they need instruction in the structure of language because that's where language finds it predictability and reliability. Structure and texture can be taught together in the regular classroom by the classroom teacher. To withhold instruction in one or the other is another form of child abuse. So we need both phonics and a whole language approach.

LEVINE: Thank you. Class dismissed.

CHAPTER 17

Revolutionizing Teacher Education

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> *Insanity is continuing to do the same thing over and over and expecting you will get different results.*
>
> —Albert Einstein

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HALLOWELL: Well, I thought it might help if we started with a very simple question: What is a teacher's job?

MCCARTHY: The teacher's job is simply to bring every child to the point where he or she can speak in his or her own voice and can live up to all possible potential. And, so, the teacher's job is to treat every child with absolute equity.

BROOKS: I echo what Bernice just said. Yesterday I talked about it's a teacher's job to create an environment in school where every child feels welcome, where they are really ready to learn and the teacher is able to teach to their particular needs. Where no child is ever afraid of failure or being humiliated or being intimidated. One of the greatest impediments to learning is a fear, when you fear failure. And, so, we have to create an environment where every child feels very comfortable and safe. I think the rest falls into place when the teacher creates that very positive environment.

THOMAS: Teachers have an awesome responsibility. Their responsibility is to respect each and every child, to honor each and every child, to embrace each child and allow each child to grow and learn in whatever manner that child can. Teachers are in the business of saving lives.

LEVINE: I pass.

VAIL: You're not allowed to pass.

LEVINE: Yes, I am. Who is the pediatrician? Priscilla?

VAIL: A teacher's job is to provide an emotionally safe environment in which each child can learn through teaching, not simply through osmosis, to individual capacities so as to live what Woody Allen might call "Life After School," joyously and productively.

BERMAN: Well, at the risk of sounding trite, I want to add that a teacher's job is to love children, to care a lot about them, and to make sure that gets communicated to them in everything you do in the classroom. When things aren't going well, when children aren't responding the way you think they might, make sure not to blame the children for that.

GORRELL: Teachers have an ethical responsibility to their students. They have an ethical demand to be open, fair, honest, and supportive, bring children to a point where they can learn together, where they can be active learners, where they can learn how to regulate their own learning now and in the future and grow toward their potential.

WIMPELBERG: The last word. I divide a teacher's job as a classroom description and an individual kind of relationship description, which I totally agree with. I also think the teacher's job is to help create an organizational environment where these things can happen. That is, it moves beyond the classroom because teachers are part of a learning community. Finally, it's a teacher's job to learn the graceful but political skills to survive the idiocies of everything else contrary to these ideas where they want to survive them.

HALLOWELL: I can't think of a more complex job description other than being a parent, than being a teacher. It seems to me there is so much that goes into it today. We're asking teachers to do so much, from opening the door to learning to moral education to negotiating politics, to comprehending complex learning theory, neurology, biology; it's an enormous job description. And, I love the simplicity that it starts with! Loving the child.

I also want to ask another question before we get into controversy and complexity. What bits of good news does each panel member see happening in this field of teacher education? If you could pick just one or two bits of positive news, what's happening that's good right now in the domain of teacher education and education in general?

WIMPELBERG: I see a lot of movement for us to move from what used to be separate subject matter areas and specialties toward integration. It's coming to the classroom level in the notion of integrated curriculum. It's also coming to the university level. I see it coming in waves. The question is, will we just let the wave get us wet, or will we dive in? It seems to me there is a building tendency toward moving away. There are things to be guarded in specialization. We need good specializations, but there is a tendency toward having specialists talk to each other in a more integrated way.

GORRELL: I think the single most interesting and positive thing that's happening right now is in the area of the professional relationships that are growing and developing between colleges of education and public schools. Most of this is taking the form of something called professional development schools. They are building new models for understanding, for cooperation, for communication, for teacher education, to learn from the schools in ways that they haven't utilized in decades, and for schools to be more able to influence the curriculum as well as be able to solve their own problems through consultations and work with the professional development schools.

BERMAN: Well, the thing I see as the most encouraging from my point of view is the fact that, in many areas, teachers are becoming much more active and assertive in insisting upon being a part of the planning that takes place around each child's needs. In many places I go, people other than the classroom teacher make all kinds of decisions about what's going to happen with children, where they should be placed; the classroom teacher who often is the person who knows the most about the child, and who knows the most about other children because of the immense experience they have, is often left out of the picture. They are the recipients other people's decisions. I see teachers getting much more dissatisfied with this and I think that's a good thing.

VAIL: Wonderful. The most exciting thing that I see, the good news, is my teachers and many administrators are helping teachers to move more toward the role of coach and away from the role of captor. I see this happening in expanded ways of measuring mastery. We're moving toward exhibition, toward portfolio assessment, versus single trap-door tests and exams, which are really designed to catch kids in failure rather than to give opportunities to show what they can do.

These expanded ways of measuring mastery provide real opportunities for students to demonstrate their competencies. For the kids we're here to talk about at this summit, those opportunities in the past have been very slim, very marginal, and closely guarded secrets. This is now coming out into the open. Motivation comes from confidence, which in turn comes from competence. These expanded ways let kids show how they have learned how to shine.

HALLOWELL: I love your words, Priscilla. From my standpoint I should acknowledge a bias. I am in love with teachers, the way some people are with their parents, because I basically was brought up by teachers. I was sent away to boarding school in fifth grade and stayed there ever after. Teachers have given me life, in so many ways, so I guess for me the best good news is that teachers still all the obstacles in their way. I guess number two on my list would be the application of brain science to teaching, or the application of what we're learning about the brain in a practical way the classroom. Again, we're grappling with it. We're a long way from making a nice, neat fit, but at least people are trying. People like Mel, with his wonderful workshops, are trying to talk about differences amongst minds, and Howard Gardner talking about multiple intelligence and neuro-developmentalists around the country trying to say, "We're learning stuff about the brain that has a practical usefulness to teachers." I find, as I go around the country, that teachers are incredibly interested in this stuff. Teachers really want to learn it and use it, and to me that's really exciting. You know, we're coming out of the era of "smart and stupid" and "shame, pain, and humiliation" into an era of, as Priscilla says, coaching and encouraging and opening the door by use of science, by the use of neurobiology. I love the fact that teachers are eager and they hold our feet to the fire in terms of "Come on, guys, make it practical. How can we use this? Don't just give us a bunch of theory." To me that's very exciting.

LEVINE: Ned stole what I was going to say and he won't let me pass again so I'm going to have to wing it. But, let me say to begin with, I wasn't really raised by teachers. I was raised by school nurses because I didn't want to take gym, so I these various psychosomatic symptoms that they managed very effectively, and I learned a lot about acting and public presentation by complaining about abdominal pain in the school nurse's office. At any rate, I want to add one little piece to Ned's comments. This will "one-up him" actually. I think we are learning a lot from teachers and we're starting to listen to teachers much more and that's exciting, too. Certainly a lot of what I've learned over the years has been taught to me by the teachers on the front lines who can turn around and convey the phenomena that we then send up to the drawing board. So, I think it's a reciprocal relationship that's occurring between some of the medical subspecialties and teaching. It goes both ways.

THOMAS: The excitement for me is that we're talking about teacher education and that this is not the first nor only place that it's being talked about. In May, Anne Ford had a wonderful summit on teacher education in New York, and here we are today talking about it again. The excitement to me is that we are opening the conversation and that we are "marrying" the medical, the educational, and the judicial fields. There's no solution that's an island unto itself. That there are programs like Mel's Schools Attuned and like Bernice's 4MAT that can help teachers in understanding how the mind works is encouraging. It's all about learning about learning. Teachers can know all the content in the world, but if they don't how learning takes place, the content doesn't help a lot.

BROOKS: I assume when we talk about teacher education, we're talking both about when they're first in training and then throughout their whole career? Let me bring it up from a different perspective. It's interesting, if we listen to our answers to the first question you raised, Ned, they had a lot to do with love, the importance of the teacher in the child's life, and creating a positive school climate. Now, I can base this on the feedback I've received from teachers, and I think I speak to at least 12,000–15,000 teachers a year around the country. I've learned so much from them. Typically, they ask "How come we never get any material on resilience in kids and the significant role that teachers play in the lives of children? In terms of some of the research that is out there now, there's a lot being filtered down about learning styles, and Gardner's work and Mel's work, but I sometimes get very concerned that the teachers have said we sometimes lose sight of the role we are playing in every student's life. One of the things I would do is have a course creating a positive school climate and under that would be resiliency.

HALLOWELL: So, what would you say is the good news? What good is happening now?

BROOKS: Oh, the good news. I'm seeing many more invitations from different school systems to speak about resiliency. I think there's a much greater interest in that, around the country.

MCCARTHY: In regard to the schools of ed, forgive me Bob and Jeff, I am not optimistic at all. I am in classrooms all the time, I almost never run into a professor of education out in any building. I would be interested in knowing how many people in this room are professors of education. That's wonderful—we have some here. In terms of the kind of staff development that's going on in the schools, that is really optimistic. The national staff development council has grown enormously in the last five years. What you're finding now in the schools is that private companies, like mine and like some of the people sitting up here, are doing more work in the schools than we find the schools of ed doing. And I think that's not, not a good thing. I think we need to collaborate much more with the schools of education and this kind of staff development.

HALLOWELL: What would you say, just to hold you to it a little bit, what good news is there?

BROOKS: He wants some good news.

HALLOWELL: Is there any good news?

MCCARTHY: Yes, there's lots of staff development going on in the schools, but a lot of it is being done without the collaboration of the professional schools of ed and I think that's too bad. I think John Goodlad's attempt to do that and I think what Jeff said earlier is going on; there is some collaboration and that's good but it's all. What I've seen, it's at administrative levels and principals levels rather than at teaching classroom levels.

BROOKS: I just want to say a quick word. When Ned and I have lunch, why I love it is, every time I leave, I am on such a high because he looks for the strengths.

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THOMAS: The good news is also that we have two deans at the other end of the table and they're here to help learn how to change education for the better.

HALLOWELL: Let's jump into a little bit of controversy. This quotation from the *Times Picayune* from a couple of weeks ago, dateline Washington: "Americans should close or reorganize bad schools even if it means replacing teachers and principals"? Education Secretary Richard Riley said Tuesday in his yearly speech on the state of education: "If the principal is slow to get the message, we should find strength in a new leader. If teachers are burned out, counsel them to improve or leave the profession. If laws need to be changed, get on with it." What do you all say in response to Mr. Riley's comments?

THOMAS: I think he's right on.

BROOKS: Well, I think it's very complicated. I think it's like when a team is not doing well, they fire the coach. I think part of the responsibility is there. There's a school in Massachusetts, Lawrence High School, that just lost its accreditation and everyone blamed the principal. A large number of faculty and the community came to the principal's support and said, "Don't be so quick in firing the principal. What have you done to support him?" I get very concerned about "Let's get rid of the people who work in the school." Many of them need a lot of support.

BERMAN: I would like to continue that same vein. I don't hear a lot of disagreement among the panelists, or even between the panelists and you folks who are attending on the major things that need to be done to make changes. I don't think it's the teachers who are stopping these changes from happening, and, in many cases, I don't think it's the principals either. I think there is a super-structure that administers schools that make policy about schools. I've had teachers come up to me and whisper to me that they think they have a child in their class who needs some help but they are prevented by a rule in the school system from saying anything to anybody about it except to the local administrator who's supposed to take care of putting the case into oblivion somewhere. I don't know who is responsible for training and preparing the people who control the schools. I don't know if it's the same schools of education that train the teachers. I think that there's such a complicated structure that I sometimes get daunted when I think of how to approach it. And yet, I think that conferences like this have to begin to tackle that problem. How do we approach the super-structure, whether we call it the community or the politicians, or the school boards, so that they will begin to take action on some of the policies upon which most of us would seem to agree?

GORRELL: I need to jump in here. In answer to Riley, I would agree with Alice and the many others, I'm sure, that it's very, very important to hold the administrators, teachers, teacher educators, and so on, to high standards, and to say "get with it." But my question is, "Get with what?" If we are holding onto the idea that there is one standard for every school, that every school is going to have to have children perform the same way, we're making the same mistake about schools that we make about students. Schools are differently abled; they are in different contexts; they are in different settings; they have different levels of support. One of the severest problems we have in schools in this country is the inequity in funding that schools have, and the inequities in support. We can find in Alabama, for example, principals and teachers who are doing wonderful jobs with very, very limited circumstances. Against objective standards, they will not look good. We can go to some trophy schools in the state, the ones where everybody wants to teach and where there's a lot of money, and you don't even have to be a good administrator for that school to run well. We're going to have to look more closely at that.

WIMPELBERG: I take a kind of political approach to this. In fact, so political that in 1988 I ran for the school board in New Orleans and, thank God, I didn't win, although I did come in a close second. I learned about street politics. The best people should run for the school board and everybody should care. But there's a political infrastructure out there in which the schools are simply one of a mix of things you can get involved in and getting elected. That has a lot to do with our schools. One of the things that retards growth in schools is that they operate on a very different time dimension than organizational or growth activities do. By that, I mean school boards are elected. Whether somebody cares about the schools loving is often not the primary reason that people who run for school board membership get involved. There are people on the school board here that folks wonder why they stay around so long. It is because they couldn't get elected to something else. It's not true about all board members but it's true to a significant degree. That operates on a frame that also creates a need, regardless of whether or not you care about kids, to come in and appear to do something. Organizationally, what you do is slap a slogan on the system; you make everybody behave this way and stand this way at ten o'clock and then you could say you've influenced the school system. Why do you do that? Because the school board that hired you to make a difference wants some visual, simple sign of difference. Meanwhile, teachers go on day by day and they say to us come around, "Yeah, when I get finished doing that stupid stuff, then we can talk about what I can learn about teaching kids." Now, this isn't the whole story. I mean, everything that comes out in this room is absolutely true—teachers can make a difference. I think teaching as a subversive activity, which was a notion in the sixties and seventies, is one we need to invigorate. But it is true when you talk about institutions and schools and institutional assessment, that this political apparatus, which goes all the way to the state and national levels, gets involved in national presidential electoral politics is just as influential as what individual teachers do. To avoid that reality and not talk about it is a big mistake.

MCCARTHY: I need to jump in. I really disagree with Riley's statement. Teachers have too many kids, teachers have too much time only with kids, and absolutely no time to be with each other to work out how to conceptualize content. Teachers have too many mandated textbooks, a fragmented curriculum rather than conceptualized one, teachers have the belief that teacher skill is based only on achievement tests and standardized test scores. There's little respect in the community for what teachers do ask you to think of the relationship between a doctor and a patient or the parent of a child who's a patient, and kind of relationship that exists. A good doctor will ask you what you think and feel, and will work with you. But you would never dare walk into that operating room and tell that doctor how to operate on your child. And, yet parents walk into our classrooms believing that they can tell us what to do. School boards have to go through no training whatsoever to be school board members. They know virtually nothing about curriculum instruction and absolutely nothing about pedagogy and they make the decision about what goes on in the classroom. Until we attack these other things, I think it's wrong to blame someone that you set up to fail.

LEVINE: I would like to add another point, which is, if there are bad schools, there's a possibility that those bad schools are the product of bad cultures. In a sense we see more and more children growing up in a culture that is cognitively empty and school is the only intellectual game in town. We find more and more kids with really terrible language skills, little problem-solving ability, very little conceptualization going on anywhere except in school. The stimuli that they're being exposed to are largely visual-motor, largely anti-linguistic, on TV, in music lyrics, and in everyday life. That obviously makes education a kind of island without a lot of connections. More and more children are having trouble seeing the relevance of what they're learning and are coming to school without the cultural background needed to make sense of what's going on in school. The exception would be in certain communities where that culture exists; there are fewer and fewer of such communities. So, I don't think we should ever be looking at a school without looking at the culture in which it's being asked to operate. Communities, in talking about the educational system in their communities, need to look beyond the school and say "What kind of culture, what kind of intellectual stimulation are kids growing up with?"

VAIL: Mel, I agree that schools live in cultures but I think, also, that schools develop cultures of their own. I'm in schools all the way across the United States, and every single one I go into is different. In my experience, the culture of the school reflects the priorities of the administrator, and whether it's a humanitarian spot, a repressive spot, a vice-like spot, or a laissez-faire spot, it is a reflection of the priorities of the administrator. If we want to know the school, we need to know the administrator first. As far as the comment about teachers, if they're burned out counsel them to improve, or to leave the profession. The operative words are *counsel* and *improve*. Teaching can be one of the loneliest professions in the world because we are put into little classrooms by ourselves to do our thing, but without colleagues and without mentors, and without continuing feedback. Part of helping a teacher improve is often to break the loneliness and to enrich through collegiality; also to give teachers more knowledge to impart. Sometimes I think it's very healthy for a teacher who is burned out or who is repressive or sarcastic to go sell sweaters at Lord & Taylor.

THOMAS: Thank you, Priscilla, I feel a little bit redeemed. What I need to say, so that I'm not misunderstood, is that I'm a teacher advocate. Teachers are vital to our society; they're the most important people for our children other than their parents, and they are not respected. I think what Riley was saying is being misinterpreted. Priscilla brought the word out: *counsel*. Help them, teach them, work with them. The other point Priscilla brought out is that principals vary greatly from school to school. She is dead solid right. A principal's attitude permeates the school. If it's a phenomenal principal with the right attitudes and the right heart about children, then that school is incredible; that's what we want to help others generate. I don't think Riley is slam-dunking schools. I think what he's saying is that, "We have a problem, folks, and we need to address it."

that's all. We do have a problem, and we do need to fix it. Denial can be deadly.

LEVINE: I think one of the other problems in what Riley said is, "counsel them to improve." Counseling sounds good, I'm in favor of that, but Riley seems to be operating from the idea that all you really have to do is get a teacher to want to improve, and the teacher will improve. And, it's just like what we've been talking about for two days, you don't just say "get better" . . . you help them get better, you try to show them ways. Teachers want to improve, they want to be better, teachers are already good and can improve but we have to show them more than just say "All right, get with it or get out."

HALLOWELL: It would be nice if it were as simple as "get with it or get out." It would be nice if we could scapegoat teachers in school, and I think we're all sort of agreeing that the problem is a lot more complicated because of "connectedness versus disconnectedness." I believe our society in the past fifty years has gradually disconnected. We don't have the social structures in place that used to be there to stabilize children, to teach them values, to help them feel that they are a part of something larger, to promote confidence, and a sense of belonging to a community. Whether you talk about nuclear family, extended loyalty to place of work, loyalty to country, loyalty to baseball team—all these forms of connectedness have broken down in the lives of children and adults in the past fifty years to the point that people are lost at sea. Schools, then, are asked then to pick up all the slack; they are the last vital social institution we've got left. They're being asked to do so much more than they were when I was a first grader in 1955; they're being asked to do the whole job of connectedness. Learning becomes a subset of this much greater job and that is where teachers begin to buckle. Teachers as a group are the most dedicated professionals I've ever met. . . . I cannot think of a group of professionals that is more idealistic and more devoted. When they are pushed to their limit, it says to me . . . the problem is broader than the problem with schools. The problem cuts right into the fabric of our—comes back to the very widespread problem of disconnectedness which promotes a sense of isolation, of not knowing where you're headed, not knowing how to behave, looking for guidance, mentoring. Schools simply can't do it. We've got to bring parents into the fold, we've got to bring businesses into the fold, we've got to bring leaders into the fold; then, the kind of environment that we wish to create in schools can begin to develop.

LEVINE: Ned . . . can . . .

HALLOWELL: Now you're itching to say something.

LEVINE: Yes, I'm salivating. There's a question I want to ask the educators of educators on this panel that's based on this conference very much. I was with Howard Gardner in Cambridge a couple of months ago and we were chatting and he said "Mel, one thing you have to realize is universally true." And I said, "What's that?" He said, "Schools of education have not been willing to let the brain in." He said "They're scared stiff of it and therefore teachers learn virtually nothing about cognition." He said "Take a look at some of the books on educational psychology—they're so insulting in the way they're written. Schools of education just are not teaching in any sophisticated way." Everywhere I go young teachers are saying to me, "How come we never learned any of that?" So, I'm interested in knowing whether this is being addressed in schools of education.

GORRELL: Well, who wants to disagree with Howard Gardner? I do. I would agree that we don't teach neuropsychology in the schools; I agree that a lot of the things that have been mentioned in the last two days are not in programs or would not have been in programs very long because they're very new. But I look at the educational psychology textbooks and I look at the courses that are taught, and I have to speak from my experiences on the campuses where I've taught, most saliently and we talk a lot about cognition, we talk a lot about how children learn, we infuse that into our courses. I can name people one after another who have a very strong desire to bring that into the curriculum. I'm not going to say that we're doing it and Howard Gardner is completely wrong. But I think he's missing a lot of the sense of what it is to start someone out in a profession, give them the beginning concepts, give them the beginnings of a vast array of things that they need to know to get going, and then try to fill in the gaps, and show them ways that they can fill in those gaps as they continue to develop as a profession. To come back and say, "Why isn't neuropsychology in the textbooks?" is really rather naive on his part.

HALLOWELL: The final question gets at what both of you have been talking about. Are there new successful models of teacher education that address the needs of all students? Can any of you name and identify models that you would promote that seem to work in terms of helping teachers learn what they need to know to address the needs of all students?

BERMAN: You know, Ned, there's not a lot of agreement on what the basics are that teachers need to know. Granted, there is only so much time that you have people ready to begin teaching. The question is, of all the possible things for them to learn, what are the most important ones to make sure that they don't start teaching without? That's where you'd see some differences of mind in people in terms of what those highest priority skills are.

HALLOWELL: I would start with what you said; I'd pick people who love children.

BERMAN: Yes, I would too.

HALLOWELL: . . . and then I'd build upon that.

BERMAN: And, people who are committed to learning about how to care and nurture children particularly during times when they're stressed.

LEVINE: Ned, I think that's a lot of baloney. I mean it's wonderful to say that teachers need to love children, and veterinarians need to love their patients, and pediatricians need to love theirs—I don't think that really gets us anywhere.

HALLOWELL: Oh. Oh. Wait a minute. Wait a minute. Hold on . . . it's so soft. That's a real difference.

LEVINE: But, if we're going to spend twenty minutes talking about teachers needing to love kids . . .

HALLOWELL: Wait a minute now, Mel. Wait . . . one . . . one second

LEVINE: I think people are going to want their money back.

HALLOWELL: I think there is an awful lot to having a teacher care about you. I don't think it; I know it. What you build on top of that can make all the difference.

But, give me a teacher like I had in first grade, Mrs. Eldridge, who loved children and didn't know an awful lot, and put that against a teacher who knows an awful lot and hates children, and I'd rather have the first one any day.

HALLOWELL: But does anyone know any models that they think, in fact, do work to help teachers learn what they need to learn to meet the needs of children?

BERMAN: Can I ask a question on yours, Ned? First of all, how you even measure love? Second, what do we in the teacher training field provide student teachers and people in training with opportunities to look at the concept of what we mean by loving kids; do we give them the opportunity to look at where you would think about a student, put yourself in their shoes, and write what you think they experience.

LEVINE: Couldn't that just be done in one morning? Does that have to be a course?

BROOKS: One morning? Well, Mel, you're much more advanced than any of us.

LEVINE: No, I'm just not empathetic.

BROOKS: I shared with the audience yesterday. What I said for four years to my own son because I was upset with him and it took me four years to wake up. What I want to get at is, I can't agree. What is a basic knowledge of education that student teachers and teachers need to create a loving environment? I think there should be some courses where we have to reflect upon what kids do to us, our reactions. It is a very lonely profession. I've sat down with teachers to consult about a particular child, some of them have said, "This is the first opportunity in years where I can share that I dislike this kid, or I like this kid, or whatever; I've never had that opportunity and felt safe about having it." I believe we must love kids. I also believe that it's hard to measure that and that we need training, and that's why I still didn't hear how many of you had a course, even though Mel may need it one day, how many of you had even a time limiting course on empathy? I would build a course on empathy and I would bring in situations where we would ask teachers to tell you about the two or three most difficult situations they ever faced: what did they feel, what did they say to the kid? What do you think the kid experienced based on what you said? And you know what the teachers told me? "We never had this in training."

HALLOWELL: Dr. McCarthy, do you know of any models that get at teacher training in the right way?

MCCARTHY: I know of one . . .

VAIL: Let's hear about it.

BROOKS: I wonder if it's your own.

MCCARTHY: I would certainly put cooperative learning somewhere there, I would certainly put the work of Madeline Hunter as a pretty darn good model for teaching, you bet I would. I would think probably if you take a look at the scientific method, if you take a look at the stuff on creativity, you've got some darn good models, for there are teachers out there who are using them and I think they work.

HALLOWELL: Can you elaborate on it a little bit for the people who aren't familiar with those you mentioned?

MCCARTHY: Sure. The scientific method begins with insights and then moves to ideas and then goes to testing and experimentation, and then goes to conclusion. It's the same cycle that I talk about all the time. It seems to be clear that if you begin with meaning and move to conceptualization, which I believe to be a critical aspect of handling content, and then to skills, and then to creativity and adaptation, and assessing that as you go, using a variety of means, you've gone through a cycle that is fair to all learners and it causes some people to be comfortable some of the time and to stretch the rest of the time. If we did that and honored both synthesis and analysis, which would focus on right and left-mode teaching techniques, another way to categorize them would be linear and round. If we taught "round" ways of thinking as well as "linear" ways, a lot of the kids who get labeled as "learning disabled" would no longer carry that label, and we would see them rising to be able to learn when those ways were used in the classrooms. Teachers need the time to develop the expertise to do that. It isn't enough to teach them; they need to be able to do it and be coached and get feedback and practice. Of course, the trouble is, time for teachers is expensive. So if you were to say to me, what is the single greatest thing we could do to improve education in this country it would be to give teachers time away from kids. If you went further and said how much time, I would say ideally 40 percent. But, you can manage 20 percent; you can manage with creative scheduling to give teachers one day week, maybe not a continuous day but time that they can work with each other, and to me that's where we have to start.

HALLOWELL: Let's take that question and move down the panel and then we'll take your questions. Maybe we could each respond to the question you've posed, Dr. McCarthy, what is the single greatest thing you could imagine doing to improve teacher education in this country?

BROOKS: Well, you know, it's like looking at the elephant from different parts. From my vantage point, we've never directly had courses which look at resiliency and at-risk kids as specifically as we should. I personally feel in any profession, including my own, we have to have time to reflect upon what we are doing from the beginning of our careers. It boils down to the relationship the teacher has with the student, and I feel there has to be more emphasis on that.

THOMAS: As I go through schools and train teachers, I get the same comment that Mel mentioned: "Why wasn't I ever told this before?" I think undergraduate training needs to include programs like Bernice's, like Bob's, like Mel's so that teachers are armed with more information before they go into the classrooms. As a classroom teacher, I wish I had had it. Because I didn't, I had to go out and find it. I know that the same problems exist in universities that exist in schools. We're trying to cram more into the same amount of time. So, I suggest a proposal for consideration that teacher training be a six-year piece. Then, universities will have more time to do these important things.

LEVINE: If I could do one thing, it would be to offer teachers an advanced course in empathy. So . . . I really changed my mind.

BROOKS: Could you really believe we really worked together for eleven years?

LEVINE: No, I have one other little thing I'd like to add which is the importance, that as we develop innovative forms of teacher training, we also have innovative

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forms of student training—to have students have a better understanding of learning. By way of conflict of interest, we have a course called "The Mind That's Mine" that the Schwab Foundation funded, which is a way of teaching children about how learning works. It's an eight-unit curriculum that we've done with fifth and sixth graders and now with eleventh and twelfth graders. We have little kids running around talking about phonological awareness and active working memory. They're pretty neurotic, but I think the teachers can teach better if we begin to educate students about the teaching and imparting of knowledge. That makes the teacher's job easier. What we are looking into is running teacher training programs in parallel with student training programs.

HALLOWELL: My list would start with Professor Achilles' recommendation—reduce classroom size. I think everything else will follow naturally from that. Then I would add to try to bring into the schools the knowledge that we have about the brain. Both teachers and students alike can benefit tremendously from asking the question, "What kind of brain do I have, and how can I manage it best?"

VAIL: My wish list would include opportunities for teachers to have a sort of a ping-pong game between work in the classroom and some or continuing education. I often think that you have to have tried to teach and to have been in the classroom for a while before you know the questions you need to ask in order to figure out how to do it better. I do know one model that is new comes out of Brown University, and it's a master's program, connected with a school in Providence. The school in Providence happens to have inside of it a school for different learners. So, it's two schools in one. These MAT candidates are working both with special learners learning those techniques, and working with seniors taking physics, and the whole curriculum. This bouncing back and forth between theory and practical experience is a beautifully rich warp and woof.

BERMAN: Well, I've been thinking about how to say this effectively. The most important thing to happen in classrooms, particularly for children who are in the early grades up through grade three or four, is for children to begin to have as many possible successful experiences as possible associated with learning. I don't think that there's enough emphasis placed on assisting teachers to find each child's competencies and let the earliest part of education be a building block for children to learn that they can do well the things they're going to be asked to do in school, and gradually start to work in the things that they need to learn how to do better. But if they build on competency rather than building on failure, it seems to me that the rest will logically follow.

GORRELL: In a minute I will tell you my fantasy of what I would do, but I want to preface it by saying that I strongly believe we do a lot of good things in the preparation of teachers. Now, here's my fantasy: I would have the opportunity to go to every department and every faculty member's office on my campus and we would take all the books away. Then we would go to the curriculum and we would take all the curriculum away. We'd bring in teachers and we'd tell ourselves that we could not talk about the theories. We would start developing a list of what teachers really need to know, what is different now from what they were confronting five years ago and we would build it ground-up. Now, I can predict a lot things that would happen as soon as that got mentioned on my campus, including people calling for my head and suggesting that I should get psychiatric help. But, I think that what we need to do is clear our minds: we need to be talking to teachers, and we need set everything else aside. Even the things that I dearly love to teach, I would set aside in order to find out what we can teach better and what should we actually be teaching.

WIMPELBERG: To some degree, we are trying that at UNO but sort of with the plane in the air and flying. That is to say that for the first time, we've create a teacher education council that has special educators and curriculum and instruction people and counselor education people and health professionals all in the same room discussing teacher education programs. It sounds like a silly thing to be proud of but, we've never done that before because there are turf issues and people teach what they know and saying that maybe there are other things that need to be taught is pretty threatening. I was feeling a little more comfortable, inappropriately comfortable, for a while because the discussion turned away from teacher education but, I agree with Jeff; a lot of good things are happening. Any one of us has had an encounter in which what we know doesn't apply to the classroom, or we met somebody who said nothing I learned had any applicability. We see new teachers in classrooms and we've got to say that at least some of that experience has got to help. It doesn't take us very far, though; I think we need to start with the realities. We have institutional realities that deans of education need to confront very much like principals in schools need to confront and to say, "What can I do within the constraints that I have?" And we need everybody's help to understand those realities. In Louisiana, for example, here's an alert—Louisiana's Board of Elementary and Secondary Education and Dean's group are opening up elementary certification. At least our first agreement is, "Everything's on the table." So, this is our opportunity to say, okay, as in any individual institution wants to take—rebuilding that certificate program, let's set the framework at the state level so that it includes ideas like this and then let's be realistic about what we need back at the regional universities to retool our folks or to bring in new faculty to make it happen. We have some opportunities like that. We have a complex set of ideas, but I think it's our intention to get it done. It's our energy from meetings like this that will matter more than anything else.

HALLOWELL: Well, in the few minutes that we have left, let's turn to you all and welcome your questions. Just go up to one of the microphones located around the room.

AUDIENCE: I am Giselle Waters, a special educator. I'm going to travel into a social, political, controversial issue, poverty and the educationally disadvantaged. At the conference we have addressed the history of school discrimination, and even child abuse and those that have non-traditional learning styles. We have verbalized time and time again that providing an equitable and high-quality education to a diverse population to reach their educational potential. But we have not spoken on how to provide an equitable education to our low-income Afro-American minority children who are facing indisputable odds in achieving academic success. This demographic group, as a general trend, is fast becoming 40 to 50 percent of our urban population. Public schools cannot endure the academic achievement discrepancy between the affluent and the low-educated children. Public education will no longer be able to justify such quantities of children failing. My question to you is, "What responsibility does CDL or anyone of you have in creating specific teacher education initiatives so that the opportunity for a free and equal education is provided to one of the largest demographic groups at risk for academic failure, children in poverty?"

WIMPELBERG: Can I respond to that? I think that's absolutely why our feet need to be held to the fire. Preparing all teachers in understanding different learners has the most, it seems to me, equitable potential. If we rely mostly on in-service either because we've given up on teacher education or because there are a lot of private providers out there doing very interesting things, those who have the money to buy it will get it, and the inner-city schools won't.

GORRELL: Another thing we can do, I think, in teacher education is acquaint our students, both undergraduate and graduate, with a lot of the underlying socio-political sociological issues that you're talking about. We need to actually have conversations about power and privilege; and teachers need to understand more about what power and privilege goes on in the schools and how that's a systemic problem.

THOMAS: And CDL is addressing that. We just received a grant to work with five middle schools. One of the schools that will be in that program is as of your description. We've worked in low socio-economic, inner-city schools before and we will continue to work in them next year and the next, and the next. Because we see them all as schools with children who need help.

MARY SCHERF: We would certainly like to make sure that the panel understands that we appreciate the fact that we are talking about this. We are witnessing the experts discuss and disagree. I think that, in and of itself, can tell the rest of us who are trying to train, that it's okay not to know what I'm talking about all the time: it's okay to acknowledge that but we have to work together in order to improve that situation. I work for the Louisiana Department of Education, I'm a deputy staff person. They hired me specifically to try to improve the dyslexia situation. In some parishes it's not necessary, but in a majority of parishes, without a label you don't get services. Why do we keep talking about cramming more into teacher education instead of throwing out what we doesn't work? I don't think it requires more money or more time. But I do think that, first of all, the Board of Education doesn't understand what's happening in schools. They rely on the administrators, local education agencies, and university professors to come to them in committees and say this is what we know and this is what we need, and then they decide. But, in the state of Louisiana, we never hear discussions about who diagnoses attention deficit disorder, nontraditional learners, how they're being taught daily. It doesn't require any more money, it requires a different mind-set. We have regular educators in this state who are being overwhelmed with the responsibility of not only intervention for these students but also are really running into a lot of difficulty.

LEVINE: If I could respond to the labeling attack, or the pro-labeling offensive, only to say that it's a shame that as a state like Louisiana becomes increasingly aware of learning issues, that it has to buy into some archaic concepts and discrepancy formulas that other people are rejecting. It would be nice to get a fresh start here and, for example, to worry about the very large number who fall between the cracks and don't qualify for services, don't fit the discrepancies, don't fit the traditional labels, and are going to be out causing crime later on and being maladapted in life because this state said it's more convenient for most of the parishes to use labels, which, you know, we've seen has a great deal of danger. The discrepancy formulas are being rejected everywhere and it seems to me someone in a state position like yours has a chance to change things, rather than to buy into the old system.

GORRELL: I'm glad to hear that a member of the Board of Elementary and Secondary Education is talking about throwing out what doesn't work, and reinventing. In Alabama, we've got a very unique opportunity. Our new state superintendent of education is going to be throwing out the rulebooks on what we have to have in teacher education. He's saying to all of the colleges and schools of education, "You will be allowed to choose how you educate your teachers, but you're going to have to certify them as being competent when they go into the classroom. If they're not competent, we will send them back to you to make them competent." And I welcome that. Watch and see if it really works. I hope it does. Maybe that's something that, at the state level, you might want to consider here in Louisiana.

HALLOWELL. It's time for us to stop. I want to take this moment to thank again Alice and the CDL. It's been a real treat for me to sit on this panel with you all. We still have the afternoon for talking amongst ourselves.

CHAPTER 18

Best Practices in Elementary School

* * *

People who say it cannot be done should not interrupt those who are doing it.

—Unknown

MODERATOR

MELVIN D. LEVINE

Director, Clinical Center for Development and Learning
University of North Carolina Medical School
President, All Kinds of Minds Institute
Chapel Hill, North Carolina

PANEL MEMBERS

AMY W. ODOM, S.ED., M.ED.

Georgia Teacher Who Cares About K.I.D.S., 1997

EVA H. THOMPSON, M.ED.

Alabama Teacher Who Cares About K.I.D.S., 1997

SUSAN ORISI SCHOESSEL, M.S.E.

Arkansas Teacher Who Cares About K.I.D.S., 1997

LESLIE C. MARTIN, M.ED.

Louisiana Teacher Who Cares About K.I.D.S., 1997

ANNE B. RANCK, M.ED.

Mississippi Teacher Who Cares About K.I.D.S., 1997

BETTY C. ABERCROMBIE, M.ED.

Tennessee Teacher Who Cares About K.I.D.S., 1997

JEFFREY GORRELL, PH.D.

Associate Dean of Research and Graduate Studies
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LEVINE: I thought we would start out with some show and tell. Why don't each of you take three minutes to encapsulate what it is that you've been doing that the outside world has deemed a best practice, even if you don't think it's a best practice.

ODOM: All of my students have been diagnosed as having learning differences. What I have found is that, by the time they get to a self-contained class, all the other resources that have been tried have not met their needs. They've missed a lot of content area, and they've experienced a lot of frustration in the classroom. When I look at what is being taught in the general classroom for fifth grade, for example, in U.S. History, the Revolutionary War, I get everything I can get my hands on that has to do with the subject, in this case the Revolutionary War, including the fifth grade social studies book. I want my students to be able to use them so that they will feel like they're part of the school program, just like everybody else. We'll flip through and they'll look at pictures. Some of them can read the boldface words. We'll talk about it, and we write main ideas and questions together on chart paper. My room has work posted everywhere. We write everything that we have questions about on chart paper. Then we come up with plans to find out what we want to know. I use interviews a lot; they take tape recorders home for these. They also may go to the school library, or on field trips to the public library. We call people, we use computers and books, and the traditional resources to find this information. Then we play games with the information that they find. They write questions on index cards, and I'll list the WH words on the board—who, what, when, why, how. They create their own questions, and we divide into teams. They try to answer the questions like a game show. They like anything that allows them to act. They feel successful because they can escape the "I have trouble learning," and they really like that.

I don't know if anybody's familiar with the work of Brian Cambrin from Australia. We had his frameworks training at our school this year, and they really pushed explicit teaching. If you can't give a reason for what you're teaching or why you're teaching it, then quit doing it. A lot of teachers at our school had always given spelling tests, for example. Every Friday, we'd give a spelling test. They said, "Why are you giving the spelling test?" If you can't answer that, if it's not doing something to help the child, then you need to quit doing it. So now every time I'm planning an activity or trying to figure out how to work best with a student, I think, "Okay, what do I need to do?" As long as I have a rationale that this will work for him, and he will learn this way, then it's worth doing.

MARTIN: I started teaching at Woodlake seven years ago, and the first year I was in a self-contained behavior disorder classroom. I learned a lot that year. But, a colleague of mine that was teaching children with learning disabilities came to me and said, "This isn't working. These children are feeding off of each other. We're not modeling. We need to find something better." We began researching and going to other places that were investigating inclusion education. The next year, we decided to put the children back in the regular class. Through that process, we have grown and developed a very good program for including children in the regular classroom and giving them modifications and adaptations there. Since then we have developed an academic lab and a behavior lab where children that do need one-on-one or remediation skills are offered times to go there. It's not a traditional resource room; it's a specific time where certain things are taught that are tailor-made for their needs. I'll coordinate with their IEP and their regular teacher. When we go to the classrooms, the children have assistance there. I team teach with about five different teachers, and we have scheduled children in certain classes depending on their strengths and their weaknesses, or what we feel we need to help them with. What we have done is developed a caring, open atmosphere where diversity is celebrated. Children realize that not all children learn alike and that it's okay—that some kids are great in sports, some kids are great reading and each person is special because of that. I think we provide an atmosphere where children can question and make mistakes. We know that from mistakes come learning. I believe that our program has constantly tried to answer the question, "Is this good; is this still safe for kids?" We're doing more hands-on activities, a lot more oral language is added to the activity, and we use a lot of literature, even in math. We tell stories, we check out books in the library that have to do with new concepts like multiplication and division and then, we incorporate a lot of the old skills too. We haven't thrown flash cards out the window, but the kids really respond to it, they do really well. They understand the concepts better than when using the flash cards. They really get in with their hands and draw pictures, and then I ask them to tell me what the concept means in their own words. It's been very successful, and we feel that the children are happier. They feel like they're learning. We do a lot with the parents, too. We have an open-door policy so that parents can come to school. I know that it makes me feel very fulfilled, and I feel like we get a lot accomplished each day.

THOMPSON: One thing that I've made a concentrated effort to do is to make sure my children know that they are in a risk-free environment. I start day one at school telling them that there's no such thing as a mistake in my room, that we are learners together in a community of learners, that I learn from them, and that I want to hear their voices and what they bring with them. I want to hear all of the voices around me, and I want them to hear my voice. Another thing I do with my students is ask them to tell me something that they think I should know about them as a thinker and a learner. They can tell you something important that they think you should know about them as a thinker and a learner; and granted, I had to get them started, but they know. Without knowing that, I have no way of knowing what kind of garbage my kids are coming to me with or what they're really thinking about themselves. So, that's been important and very effective. Once I have that established, I have a framework of working through three different activities with my kids. I work with connecting activities. I try to see what the knowledge base is and help them to connect before I introduce new information to them. If you have a child at risk, if you have a child that you know is coming from a weak environment, that prior knowledge base is so important. We have not given enough attention to that. We have to model a lot with children that don't have a prior knowledge base or that have problems in thinking and learning. From that, I go into processing bits of information and then into transforming that new information and seeing if they can use it in new and different ways. This does not mean assessments that are paper/pencil assessments. I do a lot of project-type activities that can show me that they're using information in new and different ways. If they can't, then they haven't learned it. We all ask ourselves, "How come they can't put their names on papers, how come they can't remember that, how come they can't use punctuation correctly?" A lot of it has to do with what we're doing to see how they're transforming that information—have they truly learned it? A lot of our assessments don't give us that, and we're looking at a lot of lost learning.

LEVINE: I love the idea of letting children know that there's no such thing as a mistake.

ABERCROMBIE: I use the arts to teach across the curriculum so that every boy and girl will feel secure. This includes art, drama, and music. For example, I use a picture like Claude Monet's "Bridge over the Water Lilies." We usually began by reading a story about Claude Monet and then summarize that story in various ways. Then I use social studies skills. We start by comparing rivers because we have the Tennessee River through Chattanooga and then we talk about Paris, where Monet studied. We study continents and hemispheres and then, in math, we talk about Claude Monet's age when he went to Paris to study. We create our own word problems and the proper kind of question that we should write. That helps them to recognize that kind of question in other sources. In the language arts skills, I usually divide into cooperative groups and they do plays or dramas, creative writings and use dialogue carriers and quotation marks because those are other skills that we use. When they report back to the whole group, they may use a mural or dramatize by using a puppet. Then, near the end of our study, they become impressionist painters, and I give them a little container of water colors and paper. They go home and paint their own landscape and come back and share. Another thing I use to teach across the curriculum is literature. We're all familiar with Cinderella—so I began the study with *Neuphoro's Daughter*, which is an African tale, and it starts our study of different cultures. I divide into cooperative groups so we have Yashing from China, the Egyptian Cinderella, and then of course, the American Cinderella, and then there's a book in the library about the Korean Cinderella. I have written a program that is accepted by our state and local organizational school system. I take each child that comes into my classroom, take their state test scores; I look at those scores and regardless of the score, there is room for improvement. They stay an hour and a half after school on three days a week and work on their individual needs.

RANCK: I'd like to tell you about a method that I've discovered for introducing the concept of reading an analog clock. Children often get very confused. I discovered something that seems to work pretty well for most children. First, I have them get a ruler or a number line on the desk and practice by pointing with their finger and saying, "This is a little before two, a little after seven and so forth. I make out 12 index cards which are all one color and numbered from 1 to 12 in the corners. Then we talk about the fact that an analog clock is just another line in a circle. We put that aside and go through the same steps for the minutes. The index cards are marked off into five-minute intervals with 5,10, and 15. You put that on the chalk board taped in a circle and have them read the minutes, three minutes after, six minutes and so forth. It seems to make being able to read a clock a lot easier for the children. After that I usually follow up with each making their own paper plate clocks with shorthand and longhand. Breaking it into chunks, smaller pieces and color-coding it seems to make the concept a lot more manageable for them.

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LEVINE: That's such a nice prototype. No doubt it goes beyond just learning how to tell time—it probably greatly enhances a sense of how time works in general.

SCHOESSEL: As I said before, my title is computer specialist. We didn't have a lot of computers, and we still don't have a lot of computers. We have some very old ones in our computer lab, and we have one Macintosh Quadra on a rolling cart. We had very few staff members with computers at home, and they didn't want them in the classroom either. I wanted to find a way to show teachers how they could use a computer as a tool for learning and plan for computer class. I absolutely believe that computers should be used as a tool for teaching the existing curriculum. I don't think computers should be a separate class, and I don't think we should have to walk to a lab to use them. So, I then was faced with, "What am I going to do if I've only got one computer?" I found a software company called Tom Snyder Productions. If you only have one computer in your classroom, this is the place to go. Tom Snyder Productions is a software company based in Massachusetts, and all of the software that Tom Snyder sells is designed for a classroom with only one computer. When you order a packet from him, you get the computer software. You also get a class set of books, lesson plans, and all kinds of things. We used a game called "Dr. Know-It-All's Inner Body Works" with our fourth grade. We designed an integrated thematic unit centered around this game. I worked real closely with our science specialist at our school who was the other person on the staff who had a computer at home. We said, "Okay, how are we going to get this message across? How are we going to get the kids interested, how are we going to get the teachers interested?" It took a great deal of work, and we ended up handing the teachers everything they needed. We gave them scripted lesson plans, planned their entire day, made the bulletin boards, and made the learning center activities. We made five sets of everything because we had five fourth grade classes. We handed them to the teachers and then we said, "We'll help you teach this. Let's do it all together." We team-taught it. Our whole purpose was to get the computer in the classroom, but we found that there were a lot of other neat things that came out of it. We thought, "Okay, how in the world are we going to integrate social studies into the human body?" So, we decided that the fourth graders would not be students that week—they would be medical professionals. They would not come to school that week—they would attend a medical conference at Washington Convention Center. So, each morning on the announcements, we started with a "Welcome to the convention center for our medical professionals" and we turned each classroom into some kind of health care facility with the teacher's last name. We had Thompson's Treatment and Diagnostic Clinic and Hood Hospital. With the cooperative groups in the classroom, we turned the children into doctors. They were some kind of professionals. We had a group of pediatricians, a group of allergists, and so on. They really took on those roles. The students took the entire unit much more seriously because they were professionals. The game became secondary. Books and support materials that come with the game itself required that the children work in groups. For fourth grade, we had two books, but they were not able to make a decision or recommendation without both books. So, they had to share their information. The other thing came when it was time to make a recommendation. We only had one computer and one game. The children had to decide among themselves in their smaller groups and then stand and make recommendations to the class. The entire time they had to stay in this role as a doctor; they couldn't just stand up and say, "Well, we want to go to the left arm." We said, "No, 'we want to' isn't going to work. You're a doctor and you have to convince your colleagues that this is the right thing to do." They really took the role seriously. We had seven white lab coats that were donated by one of our partners in education, and we targeted about five children each day to wear those. We reserved two for whoever stopped by and asked for them. We targeted the students who normally are not successful; the ones who have been identified here or referred to here as those who have non-traditional learning styles, who have been identified as having the disabilities and who normally have the least success in the regular classroom. We put the coats on them because that made them more important. We really thought it was going to be something little when we did that, but it turned out to be something very big because those students saw the most success from the program.

LEVINE: I'm going to ask Jeff, as an education professor, to give us a stereoscopic view of this and an overview of these projects.

GORRELL: Well, I'm very impressed. I was taking some notes on the different things that each of these teachers are doing and looking at the common themes. It strikes me right off the bat that this is a group of very creative teachers who are deeply concerned about their students. The other thing that comes out very clearly to me is that in every case they're finding a way to help students, and they're trusting students in some very essential ways. I think those are qualities and characteristics of great teaching everywhere. Each of you has been able to innovate and model innovations. You can get children to innovate because you're an innovator, in a sense. In implementing these kinds of activities, have any of you faced any barriers that you had to overcome—political, logistical, time, space, parents, kids?

SCHOESSEL: I'll address that with ours because it was something new and because so many teachers are afraid of computers. Initially, they were very interested. They wanted to do it. Then it was, "How much work is it going to take?" and "I don't know if I can do this," and then the scary answer, "I don't know if my kids can handle this." We said, "Your kids can handle this; trust us, they can handle it. Yes, some of the content is difficult but they will be able to do it." They were a bit resistant. It's something different. It's not the way they normally taught. We had five fourth grade classes, so scheduling was an issue. At our school, we're a math-science magnet school, so we have a lot of pull-outs; they go to math lab, science lab, young astronauts lab, computer lab, art, music, and PE. All those are pull-out programs at our school; and as we worked with scheduling, we couldn't take any of those classes away. They still had to go to all those places, and we still had to get them into the lab to play the game every day. We did have them come an hour a day to the science lab for one week to play the round of the game. So, that was something that was a barrier. The good thing was that as we worked that week with the fourth grade, we invited other teachers to come and see what we were doing. When we went to the sixth grade, they were immediately receptive and were much more excited about getting involved with the planning. By the time we got to the fifth grade unit, we really got a lot more participation from the teachers because they saw how easy it was to do.

LEVINE: Anyone else face any barriers that you want to mention?

ODOM: I would just say that time can be a barrier when you want to try something new. You may know in your heart that this is the best thing for this child, but a lot of times, it will take a lot of time. Once you do it, you see how successful it is. Trying to get other people to commit a lot of time to a practice that you know works with the kids can be very frustrating. But, time can be a barrier because it takes a lot of time to individualize something for someone so that they can find success.

LEVINE: I think Amy has said something that is significant. All of our experts have continually said that we need to make changes in education. But, to make those changes, to come up with something innovative and new, takes time, and that time is not in your school day. That's probably one of the hardest parts because if I'm going to implement something like this, and I'm going to design it and plan it, it's going to take more time than planning what I normally do because I already know how to do that. That means that there's a trade-off. You give up your time with your family or your free time after school or whatever, to do what's best for all children.

ABERCROMBIE: As we developed our art lab, we saw that it was not being utilized to its greatest potential. So, my principal was able to secure a grant from the Getty Art Foundation and that seemed to help in our program. In the summer time we had workshops to help us teach across the curriculum by using the arts.

SCHOESSEL: You have found what works in your classroom, and that's what you do. But, you need to stop and ask yourself, "What are my best practices?" Everybody has a best practice, every one of you are doing things in your classrooms that are great. There may be something that you do that nobody else does. You've found something that works. Stop and ask yourself, "What is it I do that's great?" and then go share that with somebody.

ODOM: I wanted to comment on barriers because I think we all heard this morning that inclusion is really a big controversy in a lot of places. I had a very supportive administration as well as the whole atmosphere of our school. We had teachers that were willing to go and try this with us. Of course, then when you really get into it, problems crop up and so the first year we had a task force. We did an action plan and really went and said what we could fix and how we could make it better. That's how the labs became a reality. When we were investigating the problems, we broke into groups to investigate how to fix them and found that most of the problems that the community was perceiving as problems were schoolwide problems that needed to be fixed. So, in essence, through our inclusion program, we have updated and changed a lot of things that made the whole community at this school a better place. Another barrier, of course, is time and personnel. Inclusion works when you have the right amount of personnel. Inclusion works when you have enough time to dedicate, and it's not time between eight and three. It's time before eight, it's time at night on the phone, and collaborating at lunch, and on duty and everywhere. We worked through that, and we have dedicated people that team-teach with me and other special ed teachers that make it work. But, it's challenging.

LEVINE: One of the common denominators in all of these projects is a willingness and an intense desire to help kids reach higher than people think they can reach. Whether it's by having kids learn something from Paul Klee, Picasso, Monet, or develop computer comfort. One of the things everyone on this panel is doing is not under-rating or under-valuing kids, but somehow seeing them as having all kinds of untapped abilities if we find ways to bring those forth. I think that the other lesson that comes out of this, related to what you just said, is the value of exposing kids to sophisticated content, even kids with learning problems. One of the complaints I hear from children I know with reading difficulties is they complain that the reading tutor is giving them baby things to read. They are actually much further ahead than they are with their skills. So, to be able to bring content up to their level of sophistication at the same time you're trying to strengthen skills, seems to be an incredibly important goal that you guys have been achieving.

AUDIENCE: I wanted to ask Ms. Martin if you are able to do that through your special education program?

MARTIN: Which population do I serve? I serve all the children at Woodlake whether they have a label or a private evaluation. But, what we did in the beginning was write a pilot program to the state department, and we laid out what we would like to do the first year. They accepted that as a pilot program for six years.

AUDIENCE: And it's using special education funds? Or is it a special funded program?

MARTIN: No, we get no funds. We don't get any extra money. We have managed to keep the staff that we have even though at some point our regular school population was around 800 children, and our special ed numbers were the same as when we had 600 children. We were reaching a lot of at-risk children that eventually did not need an evaluation. But we did manage to keep the staff. Some other programs, similar parishes that do programs like this, lose staff. So, we've been lucky in that regard. But, what we wrote in our program was that our mission was to help children that had been labeled and children that were at risk—any child that needed help in any area or that was learning differently. Presenting them with the kind of methods that they needed enabled them to learn.

LEVINE: Any other comments or questions?

AUDIENCE: I'm intrigued with your idea of the students telling what they know about themselves as thinkers and learners. I would like to know a little bit more about how you prompted them.

THOMPSON: I think we have to really believe in our hearts that all children can think, and they can think. They have to think before they're going to be able to learn. It doesn't matter what their economic level is, or if they have a label—all children can think. You just need to know how they're doing it. I talked about thinking, and I told them that I wanted them to know what I thought about me as a thinker and a learner. I told them one thing that I knew was that I was very visual—it helped me to learn if I could see things. I also told them that it helped me learn if people were quiet around me, and that I did not learn well if I was cold. I just brainstormed a lot of different things with them. Then

I turned it over to them. I asked them to think about what I had just said, that I wanted to know what their thinking was about and I did not want them to repeat what they heard me say. I wanted to know what the voice was inside of them. I do think the children know, and they showed me that they knew. I experimented with them a little bit. I let them choose who they would work with. They'd pick their best friends. After we went through this little exercise of telling me something about them that I should know that is important about them being a thinker and a learner, I had them go back and do the same thing again, and they chose different people. They went to the people that they felt were thinking and learning like they were.

LEVINE: And at the next level they'll want to select people who think differently from them, so they can have a real interdisciplinary team.

THOMPSON: I's been a fun thing. Little did I know I was doing that.

GORRELL: I've been very lucky to be involved fairly early in some consulting with a new school that now exists in Florida. It's in a town called Celebration, which was the town that Disney built. It's this one model community with a model school, and the school is called Celebration School. It just started this year. They did a lot of consulting with people like Howard Gardner, with William Glasser, with the experts on cooperative learning, Roger and David Johnson, and a number of other people, about what should the school look like. When they were starting the school this year, I was there on a visit at the time they were interviewing all the parents and students who were moving into the community and who were going to be part of the school. Their interview was remarkable in two ways. First of all, the interview was with the child, not with the parents. They asked questions structured along the lines of Gardner's seven multiple intelligences. So, they asked children, "Well, how are you in math, what kinds of math do you do well, and what kinds do you not do well in?" They asked them about their athletic interests, about what kind of instruments they liked to play, or what kind of music they liked. "Do you like to draw? Do you like doing this? Do you learn better by yourself or with other people?" and on and on. It was really interesting to be there and see the children reacting to the fact that there were adults in the school who wanted to know what they liked, how they learned, what they were good at and that they didn't ask them a single question about what their reading scores were or how they did on the Stanford, or anything like that.

LEVINE: Specializing as I do in various kinds of learning difficulties, I'm always astounded how seldom people ask the kid what's wrong? We have an old saying in medicine from a great physician named Cope, "If you want to know what's wrong with the patient, ask him and he'll tell you," and I think we need to do much more of that with children, not just what's wrong with them but also what's right with them. I wanted to change the subject a little bit to something that Susan had mentioned earlier which fits into a lot of contemporary best practices, which is the issue of computers in elementary schools and the proper role of computers. She made a fascinating statement when she took the stand that computers probably shouldn't be taught as some type of separate subject but smoothly integrated into the content. So many schools under parent pressure have been obsessed with computers as an end in themselves and have probably overrated computers. It's so bizarre when you think of how five or six or seven or eight years ago, students were taking computer courses and virtually everything they learned is now obsolete. Can you imagine when telephones first came out if every kid said, "You know, this is a new age of communication, we better give a course on telephones." There is a certain amount of stuff you can learn. I have very good computer skills. Nobody showed me how to use a computer, but I really had to use one so I learned. I think it's an enormous mistake to allow the glitz of technology to get in the way of education and to become an end in itself. We followed a lot of strange things such as when people thought that film strips or some kind of public announcement over intercom systems were going to revolutionize learning. Everyone of these things dies a slow death and ultimately plays only a minor role in education. It is so wise to take computer technology and almost take it for granted, but at the same time use it for its strength without making it an end in itself.

THOMPSON: One of the biggest things that we've seen really in the last year has been the big push especially for the Internet. I hear daily from either parents or teachers or community members, "We have to get computers in our schools. We have to get computers. We need a computer in every classroom, we need to be on the Net."

LEVINE: This, too, shall pass, of course.

THOMPSON: My question to them is, "What do you want to do with them in the classroom?" What do you think the answer is? "Research." Well, what do you want them to research?—they're first graders. "Oh, well, I don't know." The key when you're looking at putting technology in schools is the same thing we were saying earlier—what benefit is this going to have, is it going to be useful, and how am I going to use it? If you don't ask that question, especially when you talk about computers, you've spent a lot of money for a dust catcher.

LEVINE: Absolutely, and I would say to a parent like that, "Excuse me, but what has stopped him from doing research until now? There's a lot of stuff to do research on." The other thing is they don't have to be very smart or technically proficient to use the Internet. I am not willing to call that a skill. I think it's anything but a skill. We also have to recognize the drawback of the Internet, especially when it comes to developing literacy in kids. I'm not trying to knock it completely. I'm just saying we have to be a little bit careful not to buy it too wholeheartedly because, again, everything that comes in replaces something else and the question is, what's it replacing?

AUDIENCE: I just wanted the panel to respond to the question about assessment and how that interfaces with your school district's requirement for reporting to parents and students—do you have traditional report cards, and how does that all interface?

THOMPSON: In Alabama, two years ago, I had to go to a meeting where I was supposed to take assessment practices for my state. I'd like to talk about the state and my school system because the state's impacting what we're doing in the school system. Alabama gives Stanford achievement tests in grades three through eleven. This is the only thing parents understand. They understand this course, and they understand the Stanford. I thought I'd be the last person in the world to stand in front of teachers and say that I believe that there are strengths to standardized tests, I believe that there are weaknesses, I believe that there are strengths to alternative assessments, and I believe that there are weaknesses. I believe that there can be a marriage between the two. Now in this state we're trying to use the Stanford as a diagnostic tool. We're going in to the content clusters, seeing where the strengths and the weaknesses are, and doing profile sheets to try to help the teachers to mediate the weaknesses and enrich the strengths, or enrich in the same areas of weakness. We're doing it with profile sheets.

LEVINE: Any other assessment-related comments? Do you get graded on what kind of doctor you are?

SCHOESSEL: We use the Standard Nine Test in Arkansas, and we have traditional report cards in Little Rock for grades one through six. Our kindergarten has a new report card. My son is in kindergarten, and I called my mom when he got his first report card and said "Well, he got his first report card. Of course, I'm pleased with his progress". And she said, "Oh, how did he do?" And I said, "Well, he got all 'M's and 2 'E's." And she said, "What in the world is an 'M' and an 'E'?" So, our kindergarten report card has moved from the traditional style to one with very specific skills such as knows his first and last name, knows his address, knows his phone number—there are about forty skills on it. "E" is emerging, "M" is mastery, and "N" is not at this time. So that's what we're doing with kindergarten. We do have a four-year-old program in Arkansas, and our school has four-year-old classes. Those teachers use portfolio assessment, and they use it very effectively. They don't have to use it; those particular teachers have chosen to because there weren't any standards for them to show progress. The four-year-old program meets the daycare standards, but they don't have to do any assessment. So, our teachers have decided that they would use portfolio assessment and it was very helpful as a teacher and as a parent—more helpful than the report card that I got this year.

LEVINE: Any other comments or questions from the panel or from the group at large?

AUDIENCE: Do you have any suggestions on how we can convince administrators, boards of education and parents that, when you publish these scores in the paper, it doesn't mean your school is a good school because their test scores are so high, etc? The real world is what we face that every day—you're judged as a teacher by the way your class does. I teach first grade. I don't have to give them, but I feel deeply sympathetic to those who do because I see really good teachers feeling very depressed after they've accomplished a whole lot during a year. How do we convince these people that this is not the end, it is simply one means?

LEVINE: One of the things I think people need to be aware of is that your grades in school and standardized tests are not a good predictor of your success in a career. They never have been. One of the things that schools need to be looking at is how they can begin to grade in the sense of auto-range of functions, including your social skills, your organization habits, and a variety of other parameters that are much more likely to determine whether or not you're going to be promoted on the job twenty years from now rather than what your grades are on multiple-choice tests. It's vital that people recognize that a lot of the logic that is being used, the analogues that are being used to compare education to business, are just bad metaphors. Everybody's buying into them, and the best-score obsession has gotten wired in that kind of thinking. Some of the most bizarre comparisons are the ones that get made between countries. The head of special ed in Tokyo came and spent a few weeks with me a couple of

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years ago at our center, and he and I got to know each other pretty well. He doesn't understand the paranoia in America about the fact that the Japanese kids do better on math tests. And I said, "Why shouldn't we be concerned about that?" He said, "Because we only let the kids who are good at math take the math tests. The others are not qualified to take it."

AUDIENCE: Test scores in newspapers can go the other way because I've worked in districts that have very successful test scores, but that doesn't really tell you anything; it's a house of cards. It's going to fall down on you one day, and it doesn't really say that these children can think; it says they're good test takers, and do we want a society of good test takers?

AUDIENCE: Are universities moving away from standardized tests?

LEVINE: SATs.

AUDIENCE: For my high school students, there's virtually no other way for them to obtain a scholarship if they have low test scores. So, in reality, I don't think we can ignore those things in this state.

LEVINE: A lot of school policy is going to have to filter down from changes at the college level and the college admissions levels. We have to start there and, I would suggest that every college be required to take a certain percentage of students who have an excellent track record and portfolio and don't have to take SATs. That would be one way to apply for admission, either you take the SAT track or you take the "look what I've accomplished" track and "look at what an unusual person I am, there's nobody else in Little Rock, Arkansas who knows more about frogs than I do. I have studied frogs for the last fifteen years, I have done four science projects and three art projects on frogs, I have been on frog expeditions every summer, and I think that's a better predictor for how I'm going to do in life than a multiple-choice test." Colleges ought to be required to have a quota for very interesting kids who get a waiver on the SATs because they want to go with their portfolios and accomplishments instead. I'd make that a law, that not every kid should have to go through the same sieve to get into college.

GORRELL: There are some universities, I understand, that are gradually and only very, very slowly starting to look for other forms of documentation, just as Mel is suggesting. Some of the pressure comes from the alternative-type schools that refuse to give grades. They have to start negotiating with them—how are you going to understand the capabilities of the students that come from this school? It comes from a lot of sources, but I think it's going to continue as a movement. The movement towards looking at other things besides just the SAT or the ACT.

LEVINE: Where I am in Chapel Hill, they don't even interview candidates for college—there are no college interviews. It's strictly the SATs and athletic abilities and whether Daddy went there. And, so, to me, it's absolutely abhorrent that you wouldn't interview somebody for college, and see what kind of person that person is.

AUDIENCE: With respect to free service and in-service for teacher education, I wanted to address this to the rest of the teachers here and to the exceptional resources you are. It's obvious that you've made a tremendous difference in the lives of children. If you have one gift, one piece of knowledge, or one characteristic or skill which you could give to beginning elementary school teachers, what would you want them to have so that they could be able to teach any child that walks into the classroom regardless of disorder, disability, race, color, gender, or ethnic origin? What would that be?

THOMPSON: I think the most important thing that any teacher, any good teacher, can have is the belief that every child is special and that every child has something special to offer. Every child is unique, and lots of times when teachers are just starting out, they give lip service to that, but I don't know that they truly believe it. And that makes the difference. I would give them the belief that all children are special and have a special gift to offer.

MARTIN: I would add that we have to back to what Dr. Brooks said—that every child needs to feel that they belong in their school and that they're special there. And that it's a safe place, that it's going to be safe every day when they come there.

ODOM: I would give them the ability to find a way to connect to that child's life, what you have to teach them to make it relate to them.

SCHOESSEL: I would challenge them to sit down at the end of each day, close the doors to their room, sit down at the end of each day and think of themselves, what did I do today, did I meet the needs of all of my students, what could I have done differently? That's would I would give them.

RANCK: Every child is important and special so I would tell the new teacher it's their responsibility to see that every child feels safe and feels important and successful.

ABERCROMBIE: I'd like to see every teacher maintain that optimism and that hopefulness that we all entered teaching with—to hang onto that because that's what translates really closely.

GORRELL: I'm going to jump in too. This may be just saying it in a different way, but I would want them to have the strength not to give up, to keep on going.

LEVINE: I like the word optimism. We should teach teachers how to teach children to feel optimistic about their futures because we see so many kids who are writing themselves off in a sense, who have become non-risk takers because they don't think they can win. Are there other audience comments or have people depleted their attentional reserves?

AUDIENCE: Years ago, I spent a great amount of time following someone that did therapy for closed head-injury patients. And, by virtue of the fascination it gave me, I figured if they could teach a person that can't talk to communicate through song, if they could reach another part of the brain to function, many of those therapies work. Are you preparing any of that information for us to use?

LEVINE: I'm involved in a teacher training program that some of you know about called Schools Attuned. The whole purpose of that program is to take neuroscientific knowledge about normal development and problems with development and management. It's basically a three-year course that teachers take as part of their professional development. Our whole role is to play the role of a clearinghouse, of how to translate this knowledge into practical stuff that can be used in the front lines of the real world. That's one of the goals of our project and at the same time, it brings new knowledge into the schools.

AUDIENCE: Are you getting any cooperation with the universities? I've done the Schools Attuned, but as far as education available across the board to teachers in their area, are you getting cooperation with the universities to bring that sort of fulfillment?

LEVINE: We're getting some cooperation. We're working very closely with the Bank Street School of Education. We have a grant with them, and what they're doing for us is wonderful. They're taking our content in Schools Attuned and turning it over to their specialists in different content areas. They're addressing the implications for teaching social studies, the implications of this for teaching Spanish, teaching soccer, and so on. They're translating our neurodevelopmental content into specific subject areas. We're also collaborating with them to see how you do this in inner-city schools, and we're doing Schools Attuned in several schools in what's called District 10 in Manhattan, which has a lot of problems. So, I think there are efforts. It's not easy to translate all this and to get it accepted, but I think more and more universities are getting involved and interested.

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CHAPTER 19

Best Practices in Secondary School

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> *In the long run, men hit only what they aim at.*
>
> —Henry David Thoreau

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VAIL: Welcome, everyone. Notice how this room is set up, such a traditional way to teach here. We should have had you interacting a bit more, I think. I've talked to the teachers on the panel, and I've talked to them about issues that are not covered on the questions on this page. If I may, I would like to begin with some of those issues, and then we'll go to these questions as time permits.

The first issue that came up was the way high school is structured, in terms of the way time is used in the high school, in terms of moving from one thing to another thing to another thing. I asked the teachers up here how many pupils they saw a day and the average answer was 125. So, the question I am dealing with here is, is there anything that could be done to improve the way high schools are structured and still do the things that we need to do? We're going to move to content coverage next, because that's the second big issue. Anyone want to jump in here?

REVIS: I most recently came up with an idea still under trial by myself. I'm evaluating to see how it's going to work. I broke my students up into what normally we were accustomed to experiencing in kindergarten which was little stations, little work stations. I have a daughter who just graduated from kindergarten, and one of her most thrilling experiences was kindergarten. I said, now why do we lose that, why do we lose that enthusiasm for being there? How can I bring that back to my students? Even though they seem to be happy-go-lucky and want to come into my classroom, at the same time I wondered how I could make it more like home, more like what they were used to back in primary school, which I think holds a lot of the key to success for higher learning. I began to ponder the thought of these different work stations. What would happen in a work station? How could I support the different learning styles as well as the cycle of learning and make sure that all that would happen, as well as group interaction, group activity, and individualized self-empowerment. I always teach my students that success is directly underneath your chair in your dictionary. Self-empowerment is really important for our young people. When they travel, I'm at home watching TV and they're in Nicaragua somewhere trying to figure out how to say "I want some beans and rice, please." You know, I'm not going to be that accessible. So, these work stations have worked really well in many different ways and they're something that I would like for us to consider as educators. First, you need to ask yourself what would happen in those work stations. In one of my stations, I have the media. I have a TV and VCR and the whole works, which they monitor and work with very quietly in a corner. In another station, the computer is always on and ready to go for anything that they need. Another station is developing presentations—remember that I'm trying to develop good speakers. Our young people aren't very able to express themselves clearly. I also have them give presentations that have meaning to them. It's not just "Hola, cómo está? Me llamo . . ." and I can count to ten by the time they're done, you know? With four years of Spanish, they're addressing ecological issues, political issues, and other issues of note for them—whether it's their favorite musician or whatever it may be that they would like to talk about. Another is their developing their oral and speaking abilities. Well, as we rotate stations every three days, I get to have 1 to 2 to 3 to 4 on some of the most difficult subjects and it has made a tremendous difference in human contact. Imagine if I were only teaching people one of those subjects and it could be happening in an English class or maybe in history, some of the tougher subjects to understand? Well, they have me. I'm right there. All of the other students are occupied with the particular assignment that I've given them on a piece of paper. They know what they need to do, they're self-motivated and self-learning, they are in group activities that they are engaged in and certainly have functions and goals and objectives to attain. It takes a lot of planning because your planning is for all your groups, but once that planning is done, you will be amazed that there are very few discipline problems. It's exciting to see them working on their own. They're so proud to be in station 3, and they accomplished all those tasks. So, you ask them once they graduate from station 3 to station 4, "do you have any recommendations for the arising station 3 people?" "Yes, study really hard, don't lose a minute of your time." They get to hear the recommendations from the other students who passed through that station. How about for the video station? "Well, make sure you use that pause button a whole lot and read what's underneath that script, you know, all the answers are there." And, so they recommend things to each other. And, my grades, the tests, have doubled and tripled. When I give a spelling test, a dictation test, even for my students who have a lot of difficulty with this, have three days to hone the skill. They only need to focus on one or two skills in that particular station. They went from a 15 percent—some got 85–90 percent. The whole idea is that we need to have only a few thoughts to work on at a time—let's do them really well and let's get them done really well, and then we move on to something different and focus on that. It's working well. Some of the real positive aspects I've mentioned already; one of the negative ones is that I do miss the large-group interaction, which is a positive thing to happen periodically. I think I'll engage in that and see how I can bring that in to the group. The way that I thought of this process was according to what makes us feel comfortable. In that huge room out there with how many, who knows, 500 people—we sat at a table of 8 or 9, and we felt at home. We got to meet everybody, we knew where we sat, we knew we belonged, we had interaction, and it was comfortable. But, in this group, I have a feeling you probably won't know your neighbor very well, right? I mean, you're not facing your neighbor; they're to your left or right, we're taught never to speak to each other onto the side, it's a very territorial feel that we get. We're always looking forward. I have the answers and you don't, supposedly, right? But, when we are in a circle or in a group, and we have different functions, then we seek each other's companionship and knowledge, interaction and activities to learn from. And it's comfortable. My students tell me that they no longer feel threatened by the large group. I have at the very most six to a station. They all have earphones, they all have the necessary things; we worked it out and it's working really well. I recommend that you might want to try that and plan it out in your mind a little bit. It's a lot of fun and it's not boring in the least.

KENT: I teach social studies in Northern Virginia, Leesburg, Virginia. My "gimmick," as a lot of people call it, is cooperative learning in group projects. One of the most effective means of removing the walls of your classroom (and I think anything you can do to remove those walls will enhance the education for your kids) is through cooperative learning in group projects. Probably two of the most successful programs that I've had, they're the ones the kids enjoy the most, is the oral history project that we carry out locally. We do this at all different levels. We do it with many different types of history

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classes. But we carry out oral histories on various topics of people in the community and then turn those over to a local genealogy library that we have. I have some kids who are published because some magazines have used their materials. It really has enhanced their education. I'm not just talking about advanced placement kids. I'm talking about kids who have been cast away by other groups because they figured, they can't really learn anything. But, when you put them into a project like that, then they become a part of the community and the community becomes them.

Another project that we've done in the past is in historical archaeology. When I came back after getting my master's degree I decided it was time to put this into the public schools and we created a group called The Lawton County Student Archaeological Survey. Most of my kids participate in this in which we work throughout our county on various projects. The interesting thing that took place with this type of cooperative learning is I had the kids outside the classroom and I had them working in archeological sites. In one unit, I had a student who ended up at MIT working next to a student that had many different learning disabilities and basically was told that he was not going to be able to do much in his life. The student became good friends with this person who ended up at MIT and that student that was told that nothing much was going to happen with his life. He is now a junior in college and studying to be an archaeologist. Partly because that student from MIT took him under his wings. That is the real beauty of a cooperative learning project. We're putting kids in different circumstances meeting different people that they're not going to come into contact with and that's a good side. The down side, a lot of people say, "how do you assess someone in cooperative learning?" Well, the first thing you have to do is you have to realize that when you do a cooperative learning project, everybody's involved in assessment. Which means you're assessing, the kids are assessing themselves and each other in the project. They're tougher on each other than you are on them. And that's okay because then they create their own standards of sorts. But you can get around this assessment. The other thing is, a lot of people say, well, then the teacher's assessment becomes more subjective. There's nothing wrong with that. We have been taught or brainwashed in the last ten, fifteen, twenty years that, if you create a subjective assessment, then you probably have some flaws in the assessment process. That's not true. You're professionals, you deal with kids, you deal with people in different situations you can probably assess better than any other profession. Therefore, you have to trust yourself in that assessment. There may be some little flaws here and there as you go along, but you learn as you go, and the kids will actually help you with the assessment as you're helping them. So, if assessment is something that scares you away from cooperative learning, cast your fears aside, jump into the water, the water's fine. I think you'll find that, as the walls start to remove from your classroom, you're going to start to find that it's a much more positive learning experience for everybody in it.

VAIL: Here's a gift that I would give school students, and I want to base this on the work of the pediatric neurologist, Martha Denkla, who talks a great deal about what's called executive function. An executive function is the uniquely human ability to get an idea, to make a plan, start, progress through the plan, monitor your progress through the plan, know where you are in the plan, and then when you have reached the end of the plan, it's time to make another plan. In order to teach her post-doctoral neurology fellows about this, she uses the acronym of the Egyptian deity, ISIS. You might like to jot ISIS on your page and let me tell you how she uses that. The first "I" stands for the ability to initiate (and these are the components of executive function)— the ability to initiate. "S" stands for the ability to sustain a line of work or a line of thinking. The next "I" stands for inhibit, the ability to inhibit distractions from the outside or even deadlier distractions from the inside. In school, I'm coming to the last "S", in school we focus on initiate, sustain and inhibit all the time. The last "S", the last letter stands for *shift*, the ability to put one line of reasoning or thinking or work aside, and remove oneself and then begin in a different subject matter or a different line of thinking. In school, we give a lot of training in initiate, sustain, and inhibit. But, we give very few opportunities to teach kids the art of the transition that shows up in a hurtful way to the high school student in terms of physical transitions—just getting those materials and getting that body from one classroom to the next. It creates a rather breathless mind-set which I believe is harmful to memory, and I would like to cite right here, some very new information that has just come out of Cold Spring Harbor Lab on Long Island about memory. They have found at Cold Spring Lab that memory and the capacity to form memory and to have access to memory is enhanced many, many fold by breathing spaces in between tasks that you are trying to learn. If we put that together with Martha Denkla's final "S", for *shift* and we look at breathing spaces, we see an important factor. My heart breaks for kids who are eager and trying and teachers who are eager and trying, kids who have weak language bases as they try to make lexical shifts, their school day is like a game of lexical fifty-two-pick-up. They are immersed in the lexicon of geometry for fifty minutes and then they're supposed to file that away and pull up the lexicon of the computer and the lexicon of history, and the lexicon of French, and the lexicon of Spanish, and the lexicon of the locker room because, God forbid you should be weak in that one. The teacher staying in his or her own room continues to use the same lexicon, which is already familiar and tasty and yeasty to this teacher because that's their discipline. But, for the kid who has to rush from one to the other, and shift whole sets of lexicon and vocabulary, the kid who is linguistically powerful can do this, but the kid who has any kind of subtle linguistic weakness will flounder. Not because of bad intentions, and not because they're rotten people, but just that the lexical shifts or the requirements for lexical shift are too intense. So, if I were going to restructure high school, I would put in more training for kids on how to make a transition. What do you need to do in order to be able to make a transition, and then opportunities to practice making transitions and to have the transitions less, and to give empathic thought to how we can make the lexical shift easier.

McCARTHY: Boy, that was terrific.

WIMPELBERG: Can middle and junior high schools count as secondary schools? My examples are more from them than high schools, but I think some can apply. We've been involved in the design of the state's first charter school, in Jefferson Parish, and was created for kids who have been expelled from school. For those kids, and I make a point that that's who the school is designed for, because I think context matters and the kids are a part of the context. The teachers move among classes and the kids stay in home room; home room is their classroom. Now, they've also built in physical activities so its not like they lock the doors and then six hours later, the kids come out. But, the kids are not put through that normal middle, junior-high first ritual, or maybe even in some cases, fifth grade ritual—gather your stuff up, you don't really belong any place. What you own is either in your locker or with you, and then move on to the next station. Maybe that would be good for a lot of kids, not just kids who are at risk in that they've been expelled. This is a way to try to give them one more chance. Not a new idea but part of the middle schools' organizational ideology is to organize classes, and it can certainly apply to secondary school. Organize classes such that teachers have a core group of kids. Any structure in and of itself doesn't do it; it's how you understand and use the structure, right? So, just restructuring doesn't get what we want—it's how you use it. But, used well, this structure allows for a teacher to be principally responsible for 30 kids. You've got almost an elementary-home room kind of thing, and that's one of the nice ways to do this. While a teacher has all 120 or 150 kids during the day (because they rotate among teachers) each teacher has, in a classic home room situation, the responsibility for 30 of them. Not just one of these random home room things, like a lot of secondary schools' structures, it's a home room of kids in that working family or working group. Then you work out what it means to be responsible for those kids. Classic middle schools, then, make arrangements for all those teachers to have one common period off, rather than to have it be randomized throughout the day. The group of teachers has a common period off during which time, they can talk about what's going on with their kids. It can go in a negative direction but it can also, if done well, go in a positive direction. "Let me tell you what seems to be working for me, so and so seems to be acting out now—I can't make sense of what's going on—anybody have any insight—can we all try something with him or with her." That common period off allows for those teachers to exercise their responsibility for those kids. So, you have one teacher for 30 kids ultimately responsible, you have that connectedness and it can be worked out a variety of ways. But you also have a kind of reciprocal community of teachers for the whole group of 150, who have common experiences with them and can share those experiences with each other to try to do things better for a kid who is having difficulties right now or a group of kids.

BOLTON: I've forgotten what the question is. I'm one of those type learners, I guess. Or maybe you're not asking the questions I know the answers to. We do something similar to that in our school. It's not a charter school, it's a school within a school, and it seems to be working. I'm not going to cite a lot of studies other than the fact that it does work and, for many reasons. That program in itself would not work except for the teachers. So, you can have any kind of structure that you might choose; and it will work for some kids, and it won't work for other kids. It really depends on the teachers in the program. People will make the difference whether the program works or not. What we need to do is find multiple programs and situations and structures for the kids and, the same as we do with teaching styles.

SIMPSON: Well, I've had a very unique experience and opportunity in education. Six years ago our district received an innovative education grant to create a school for the most at-risk student in our district, which was the person who had already dropped out of school, to create a high school where they could be successful. We had two charges and they were: 1) that the school would be non-punitive; and, 2) that we would not try anything that had already been tried before. So, I will say that it was a challenge. We weren't sure where we were going but we did go to some experts, and we continue to do that, but at the beginning we didn't know what we were going to do. It was just something that we knew we would try. I will say we had six weeks from the time that we were hired until the time we opened our doors and, because three of us were already trained in 4MAT, which is Bernice McCarthy's program, we had already gone through the intermediate level of training. We still made the commitment that as a team of six, we would spend two of our six weeks in training and 4MAT because we believed in it so much. There are so many things we do, but we really looked at how we could give responsibility for a child's day back to the child and total responsibility for their learning. To sum it up really quickly, they choose what time they come to school. We had to get a waiver, and we've really worked to have the flexible schedule; they have to put in X-number of hours per week, and this accommodates all their different needs. As you well know, they have incredible needs. They only take two courses at a time, which gives them breathing space in learning. Some of them only take one course at a time and they have approximately six weeks to finish that course, so it's about the same amount of seat time that they would have in a regular school. They can work in any classroom that they choose. They can stay with the English teacher while they work on math, if that's the place that they get the most empathic reinforcement. We redeveloped and rewrote all of our curriculum. We are multi-certified. We had to be because there are only four teachers teaching a whole high school. We also now have a vocation component, but all of our curriculum is formatted. We give them the whole course at one time. "Here's your course," and I always say to them, "You can do this like you do a novel, if you want to; you can start at the back and work to the front and you can go from the middle and go to both sides. You have total choice on how you take your course." I feel very comfortable in doing that because I wrote it and I know what's in there and I know whether it will work. And, so, when they come to me with questions, I can direct them; I feel like every course is choreographed. I know what kind of learning needs to be taking place at what time. What I can say is that it works. The students have to pass the same state exit test that every other student has to take. We see students, "throw-away kids", graduating. We see them being successful; it's not something that happens immediately for everybody. We're changing lives. We also have a three-day orientation before they come. They do apply and have to be interviewed before they are accepted. If it's not working for them right now, if they're not able to make changes, then we say, "You know, get things back in order in your life; it doesn't mean anything is wrong with you. Come back in twenty days and let us look at you again or, not look at you again—get your spot back," but we tell them that there's somebody else that wants their spot so there's a little bit of pressure. The main thing we try to do is give them responsibility for their learning, responsibility for their day. We want to remove the frustration that occurs when a child, for any different number of reasons, can't succeed. They spend an inordinate amount of time and energy dealing with a system in which they are unsuccessful, so we said "Let's remove all of that," and we did that. We're called the Academy of Creative Education, that's the creative part of it. When something isn't working, we get together every Friday afternoon and assess every student in terms of attendance, performance, and behavior. I haven't had a discipline problem in so long, I don't even know if I could handle one again because we just don't have it. It's the most amazing thing to see students bloom and grow when they take control of their own learning. It's a beautiful, magical thing to watch, and I wish everyone could have the experience I've had. It's been wonderful.

RIDDLE: Well, I work in an eighth grade situation, I teach exceptional children. I have two mentally handicapped, several learning-disabled children, some emotionally behavior-linked disturbed children, I have one child who has a hearing problem and some orthopedically handicapped children with attention deficit disorder. We do something that I thought was not so new and novel but, after being here, I think maybe it is. I go into the classroom with them all day long—I take them with me. We go into our language arts class, we go into a math class, we go into a science class, we go into a social studies class. Not all children have problems in all those classes, but they come with me in the areas that they do have difficulty. I'm the one in the classroom that does not understand. I'm the one in the classroom that says "Could you tell me that one more time?" or "Let me say it this way, have I really got that? Really is what you're saying 1,2,3 or . . .? Let me come to the board and work that problem and see if I've got it right, or would you please do one more example?" Or, sometimes I teach. I just taught a unit. I taught six weeks of geometry because the teacher that I work with did not feel comfortable in teaching geometry to children with problems. Now, she decided after two or three days that she would stay two or three days behind me and teach all her other classes using my materials, because it worked so well. Not to say I'm that good a teacher, but what worked for my children works for other children too. The key to what I do is that my children are finally allowed to be like everybody else. Nobody knows which kids are mine, nobody knows which kids aren't mine; I'm the one that doesn't understand, and I have a great time in each class. But, at the end of each day we have what's called an encore period. That's when these children can come back to me, with the papers that they did not understand, the tests they need read out loud, the questions that they did not get on the test. I've collected all those by that time they come back to me. They're set up for success; they will not fail. I feel like I'm there for them to make it work. But the reason it works is because all the teachers that I work with have bought into it 100 percent, and they're not just my kids, they belong to all of us.

REVIS: I'm in a block scheduling. Students meet; some blocks are 90 minutes and they're trying to extend it to 100 minutes, and they meet every other day. This is fine for some students, and just a real problem for others, especially if they have that continuity sequential problem, which most of us have even as teachers. It's an A-B schedule. You meet every other day, and for those 90 minutes so, they get more of you for less money.

BOLTON: Yes, we used that in some of our schools in our county on a trial basis. Most of the teachers like block scheduling, but not for the reasons you probably think. Block scheduling is easier for administrators. It's more enjoyable for most teachers because they seem to have blocks of time in which they can do more things. But, for the type of children that we all are having trouble with, I'm not sure block scheduling is the way to go.

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SIMPSON: We do block scheduling and I absolutely love it. We've done it for two years now. We were not sold on it before we went to it. We do it; we're not A-B. We do language arts, math—both 90 minutes every single day. That way they get more time in language arts and math. Science and social studies are each one half of a semester. So in January, they are either in science or in social studies and then the other one. For my exceptional children, it's wonderful because they don't have as many classes to remember and there is continuity every single day. The end of the day is when we have PE or an elective but that's their encore period and my children come to me during that time.

McCARTHY: One of the things I did as a high school principal was that I required that every teacher on the faculty had advisees. We dialogued it and talked about it, and argued about it and finally agreed to do it on a trial basis. It ended up that each of us had about 22 high school students that were our personal concern. When the first report card came out, the parents didn't come and line up with the Spanish teacher, and then go to the math teacher. They came to a person who had all of the records and all of the things that had happened with that child in all of his courses. The child was required to come to that session. We did two days where we sat with parents and students. For example, if there was a problem with the Spanish teacher, or the math teacher, I would go to that teacher and say, "Why is this a problem, tell me what's happening, how can I help, how can I be with his parents on that?" I found that, as a structure, it was something the parents absolutely loved in the high school.

KENT: I want to go back to something that was said yesterday when you were talking about creating parallels. We're trying to get kids in certain directions, or they're going in certain directions. One thing you have to realize is that, as a teacher, we basically dictate the direction. Therefore, when we talk about barriers and such that are laid out for the kids, we can remove those barriers. And, when it comes to content, are all of you slaves to the curriculum guide? Does anybody have a curriculum guide that they have to work from? Does anybody not have a curriculum guide that they don't have to work from? How many of you have some sort of state standards testing, or some sort of assessment that the kids have to go by? One of the things that drives me absolutely crazy is when they slap these curriculum guides to you that are written by people who are not necessarily in the classroom. Even worse are the standardized tests which are created by people who are not sitting in the classroom with the kids, and they tie those to them. We technically write our own curriculum guides for our county based upon what we consider national standards and what may be coming out of Richmond at the time. The worst thing that could happen is that we become a slave to that curriculum guide. We're already slaves to our contract, right? Look into ways in which you can expand the boundaries of your curriculum guides and bring things from the outside. Write your own curriculum guide within your school based on your standards that you have. It gives you more flexibility because you know the kids that you're working with better than Baton Rouge does in Louisiana, or Richmond in Virginia, and you can probably cover material a lot more efficiently. At the same time, it allows for more flexibility within the classroom. So, look for ways that you can tear apart these curriculum guides.

AUDIENCE: As a professional educator, why would you allow a curriculum guide to be developed that you have no input into and that you're not going to use? The teacher voice is a powerful voice, and you know where the state department is and where those curriculum guides are coming from. So, why not call and say, "I want some input." I think we need to discuss this. We cannot sit back and allow that to happen. That's a waste of money and effort, because those persons could be doing something else to help us as educators to do something different in our classrooms. I think our teacher voice needs to be heard in cases like that.

KENT: You see, that's an excellent voice and a lot of it depends on whether you have a state in which they have mandates or they have recommendations.

AUDIENCE: But, we're voters. We are voters. We have state legislators who listen to us because we pull that weight.

KENT: If you only have 40 percent of your population voting, then basically you don't have the whole voice, but that brings up an excellent point. One of the biggest responsibilities we have as educators is that we have to be educational leaders. If you just walk into that classroom and you close that door behind you and say, "I'm just going to take care of business inside that classroom," you're failing partly as a teacher. An excellent point, get out into the community and get out into your state and spread the word of education. Tell them what you like and what you don't like. And that way you become the voice, a true voice. If we just stay within the walls of that classroom, we're not doing anybody a favor, especially not your kids.

BOLTON: I think most states have a large lobby for the teachers, but for some reason, they don't seem to be getting it out there. One of the things that he mentioned was that only about 40 percent of the people vote. Well, that should actually be in our favor because if 40 percent of the people are actually voting, then there's a large number of teachers who are involved in the system. We're really participating. They could be a large part of that 40 percent. We all could be heard if we would participate actively ourselves instead of complaining about it.

AUDIENCE: Project 2061 made some recommendations regarding how science should be taught and what science should be taught, from Pre-K all the way up through secondary level. What will the university do if the secondary schools switch to Project 2061 format? Are you all looking at admissions records of kids that have taken biology or science or chemistry or physics?

WIMPELBERG: Now, that's a very good questions, especially if we're tied to an old system of looking for certain things on transcripts. I'm not an admissions person, but I believe it's true that at my university, any student who has finished what's defined as the State of Louisiana curriculum and has either the credits or the entrance exams based on that curriculum, is admissible to the university at certain standard levels. And so if that's the curriculum, if it's a statewide adopted curriculum, then we're okay. If it's individual district by district, then there would have to be accommodations.

BOLTON: I think one of the points that someone was trying to bring up here was the fact that we could tie in different subjects. I recently have come into a problem where I find that it isn't as much of a math problem as it is a reading problem. I'm not trying to blame reading teachers. I think that as a math teacher, now that I recognize the fact that reading is important for mathematics, that I better learn how to become a better reading teacher, as well, especially in my content area. And, therefore, maybe I could work with one of our reading teachers and combine our courses of some sort.

McCARTHY: Anyone else on the panel want to comment on the content coverage problem?

REVIS: I can teach a math concept in Spanish and science and history and, you name it, I can cross the borders at any time that I wish, whether they're physical borders down south, or north, or west, whatever, and it's wonderful. But one of the things that I have to keep in mind because of my location and the culture that I teach is to ask myself on a daily basis, "how valid is this information for my youngsters? Will they take it home and be able to use it appropriately?" In particular, I think with some cultural groupings, we have to be very sensitive to the fact that maybe what we are sharing has nothing to do with their life. When I open up the textbook, do I see only white faces in the textbook? Now, we're trying to get past this, but there are a lot of discrepancies and verbal expressions and recipes down to just ways in which life is being approached. Maybe we don't have to add our fruits together and our vegetables, maybe they should be collard greens, and yams. I look at the content of my textbook which comes from up North somewhere, some other place. Being Hispanic myself, I often catch a lot of little holes in the textbook because they do not really address who we really are, even though it's a Spanish textbook. I don't know who wrote it, but they certainly weren't Hispanic, I'll tell you. And, I tell my kids when I see these things. When I make my units, I say these are world citizens. They need to know about the world. I'm not going to say they're only going to live within their culture for the next fifty years—I hope not. These are young people who will hopefully have a chance for travel, even though maybe they can't go three blocks to the beach yet because they're that poor. But, I don't give up hope, and so I teach for a lifetime. I teach also with a vision for creativity. What can they really do with this with somebody else? Can they teach this? Is it worthy of being passed on to their neighbor? And also, can they teach their own family members? In our families that I teach, maybe great-grandfather didn't even make it. He may be nintey-five years old but he's still there, and Grandma is too, and Great-Aunt, and maybe they never even learned how to write. Can I teach my young people to be good teachers? That is probably the only way my community is going to get healthier and better. I want my young people to be able to speak out to communities about issues that matter, in a foreign language if they have to. When they are down in Nicaragua doing some good work for others, and they see that there are pesticides in the river, I want them to be able to have a little tiny summit, a village summit, to educate the population, and feel proud that they can do it, even if it was one of their presentations way back in Mrs. Revis's class two years ago. I tell them, "Whatever you learn here has got to serve you later. Don't you ever learn something that won't serve you." Now, they have to pass these little standardized tests. That's really important too, because we don't want them to feel bad about that if we can help it. But, they've got to go beyond that, and we've got to teach them to be citizens of their community, of the world, of their family—because they need to know that they're important to their families. I reflect on a daily basis about what's going into my unit today. Where's the heart of this

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unit and what purpose will it serve? And it has served me very well to ask those questions on a daily basis when I interact with my young people. That's my recommendation for today.

McCARTHY: Probably the most important thing that I do and think about in terms of my work is to how to conceptualize content. Goodlad says "we need the experts to tell us what the concepts are." I teach American literature—that's my passion, so it's important for me to know what the best experts in American literature say are the key concepts in American literature. I like to look at what this group says, and what that group says, and what that group says. I need to look at my own kids. For example, in San Antonio, where April is, they teach rodeo; we don't teach rodeo in Chicago. We make decisions locally about what's going to intersect with the lives of our kids based on the conceptual base that someone has given us. We need to match what the experts say and what we say to our kids. I go back to those four questions: why do the kids need to know this, what exactly is it that they need to know (and that's no small question), how will they use this in their lives, and, if they use it, what will they be able to do that they can't do now? And, if teachers go through that cycle and answer those questions, they come to better decisions about which concepts they ought to be teaching. Teachers need to look at the concepts that are being taught in the grade below them and the grade above them. The teachers need to be with each other in order to make the events happen in neighborhoods that need to become conceptualized in the school. You have what's going on in your community, you have the context of that, you have what's best in that field, and then you have to intersect with those kids' lives.

WIMPELBERG: We have one more thing that we want to put on the table to ask the teachers about. Sometimes we think of high schools as fairly social places. There's one piece of literature that says that what kids actively do is constantly negotiate as little work as they can get away with so they expand the social part of the school day. Teachers and kids engage in a negotiation process—if you give me just ten more minutes on this stuff; I'll let you have the last fifteen minutes for yourselves. How do you contend with the fact that the kids are sort of interested in each other actively during this period of their lives? That doesn't get left at the school door, it comes inside. What about the social aspect of kids' lives along with the academic side of their lives?

BOLTON: One of the things that we do at our school that makes a difference is that we get to know the kids. We meet them at the door, during break, during that social time, we talk with them. We work with some tough kids, and I grab hold of them and wrestle them a little bit. You'd probably have trouble with that, but we all have to find our own little niche of success and what works for us. We spend a lot of time talking with the kids and finding out, "What's your problem, what do you want to know, and can we help you?" I get involved socially with my kids. I talk with them even during class when they're working on computers; ours is a computer-based instruction in mathematics. I walk around and talk with them, and "Who is that girl I saw you with?" We have a good relationship, and they know that I care for them. It's got to be a genuine thing. You can't just start tomorrow and say, "I'm going to care for you," but you've got to genuinely care for the kids.

AUDIENCE: I want to add one thing that really makes a difference. Go sit in the cafeteria at the table, and eat lunch with the kids. Don't go to the teachers' lounge, hide in the teachers' lounge—spend time with them. I can learn more walking the hallways before school about who went out with so and so, what happened over the week that's bothering them, if you spend time, like you said, with the kids. You know, if a child has difficulty, I go to bat for that child; if the child is in trouble, I am the one who counsels him besides the school counselor. I work with that child. You've got to be an advocate for your children and, when they see you care about them, they will do tremendous things to better themselves as well.

BOLTON: Try this one—you have a student that comes tardy to first period. Talk with him, say, "Listen, why don't you give me your phone number. I'm going to call you tomorrow morning, what time do you want to get up?" Do that for two or three days and you'd be surprised all of a sudden they know you care about them and, "See, I made it today. I didn't need you. You don't have to call me. I'll be here." Just little things like this can save you a lot of problems.

KENT: I'm principal and teacher of a small military school in Mississippi. We have 160 students. Half of them are boarding students so they come to us very broken a lot of times. But one thing that helps them is cooperative grouping. You hit on all those areas so that they are strengthened in areas they are already strong in, and then they learn teamwork and social systems. That's the part of cooperative learning in which you learn how to work with other people. In most ADD kids, that's a real problem I've found. I end up taking kids home with me all the time when they're sick. The camaraderie they have from being in a small school and the structure there helps them put things in order and then focus. When they've got somebody cheering them on, it makes a big difference.

KENT: One of the most important tools that I think every teacher needs to use that you can use in any discipline and is such a high-tech tool is a newspaper. There isn't a single discipline that you cannot find an article in the newspaper at least daily or weekly that you can bring that into your classroom and show a parallel. Once you link the outside world to your classroom, the kid all of a sudden gets it. Because now it becomes part of them. The kids are going to learn more outside your classroom than they will inside your classroom. It's a given fact of life—education is a full-time, lifetime experience. My wife teaches math and she can still find articles in the newspaper that relate to algebra and trigonometry. There are other disciplines like English or foreign language. Put that into your curriculum, build that into your curriculum, and then everything really comes alive for the kids.

SIMPSON: Another thing that we do is treat every child as gifted with gifts to share. That opens a dialogue with that child of what they can do to teach you or what can they do to teach someone else. Another thing that we try to do is talk about quality a lot. We talk about quality schools. What does quality look like in your work? One thing we do is we have one person who's really, really strong in terms of the educational-social part. Another person may be a little bit stronger in the "what does that quality work look like" part. If you're on a team, each of you can take one of those areas and be the one that promotes something on your team. That way you're not all trying to do the same thing.

AUDIENCE: Do teachers generally keep the same students until they graduate?

SIMPSON: We do; we have a group of fifteen or twenty. They stay with us until they graduate, and if they miss a day of school, we encourage them to call if they're going to be absent. Then, if they don't come, we call them every day. Every time they're absent, if they haven't made the connection, then we call them. So, they know we're going to call. They start calling in or telling us the day before—these are students with attendance problems—they know that we will connect with them.

AUDIENCE: I'm not a teacher; I'm a parent, and I have been working recently on some welfare reform issues. The things that you are talking about—calling the students and being an advisor to them, are some of the things that we are now finding in working in the welfare reform area. One of the things that has been missing out of people's lives is to know that somebody cared about them. We are having to call to get them to come to work every day. Businesses are having a hard time with that, and I'm thrilled to hear that educators are doing this because it's going to start that child and then they're not going to have that problem.

REVIS: I wanted to say something in regard to that. I live in a pretty small community, which always helps, but most of our communities are small when it comes to neighborhoods and where we live. A lot of our kids are very active in the workforce; they have to be. So, by the time they're in sophomore year, they're working six to seven hours sometimes and full-day weekends. It's always so refreshing to walk into that particular supermarket where they're so proud to have a job: "Look at me . . . look at me . . . look at me . . . look at me . . . I'm behind this cash register." They're recognizing me behind that cash register even if it's packed; it's a very busy grocery store. They're so proud, and I walk down to where they're stamping milk bottles. I talk with them, just for a few seconds, just to take the time to be with them, to pat them on the back and say, "How did it go last night, did you stay out very late, were you still there at midnight when I was there? Why are we both out so late? In any case, here it is a Monday morning and we're back at school, and we're all kind of tired and sleepy but let's go for it." It really helps. Find out where those kids work, go visit their workforce, go have the McDonald's hamburger or whatever you have to do to stay there and watch them and be proud of them and they'll always be very proud of you because they'll say, "That's my Spanish teacher over there. That's my history teacher. Look, look, look." It's a really nice connective force, and they know you're out there. I had to give a ride home to three little guys that missed their ride from work to home. What a great experience—it was wonderful. I can go to their home, and something will be waiting for me. So, that connection is really very vital. I think that whole thing that we heard from Dr. Brooks is really, really essential for our community children and for ourselves. We get so much in return. It's not a one-way street here. It's remarkable what you will get from your kids when you reach out like that.

RIDDLE: And I think it's just as important for the kids to see us in places other than school and that we don't live twenty-four-hours a day in that room, that we really do go to the grocery store, we go to the mall, and we even have families. We even get our hair cut—it doesn't just fall out. We have lives too. It's important to talk to them, but I feel like they know me better when I talk about my children from home or I talk about my basset hound, Ernest T. Bass. They love to hear about Ernest. They know I'm a real person too, and that education is not just for the school, that someday they're going to be out there and it will have to serve them as well.

McCARTHY: Okay, I'm going to close this. I want to say something, though, about the teachers who are sitting up here with the awards that they received. It is impossible to describe as a parent what a teacher like that means in the life of a child. I could tell you exactly which teacher it was who gave each of my five sons the feeling that they were competent and somebody special, and the boys would say to me, "Mom, he didn't have to care about me, he's not my parent and he really does care about me." I could tell you exactly who those teachers were, and I tell everyone they're worth millions and millions of dollars. I really would love to see a large round of applause for these people up here.

CHAPTER 20

Medication

* * *

> *A person may cause evil to others not only by his action but by his inaction, and in either case he is justly accountable to them for the injury.*
>
> —John Stuart Mill

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DRELL: I'm Marty Drell. I'm the head of child psychiatry at LSU and the clinical director of New Orleans Adolescent Hospital, the public sector hospital for kids who don't have health insurance.

BALLANCO: I'm Jerry Ballanco. I'm a pediatrician with Rothschild-Ocshner Group and with the CDL, and I'm glad to know that there's a place that I can refer children who don't have any money for mental health care.

HALLOWELL: I'm Ned Hallowell, a child psychiatrist, and I have to say what a treat it is to be on a panel with these guys. Gordon is an old, old friend going back to medical school training days. Marty is a new friend from the Academy of Child and Adolescent Psychiatry, and Jerry I've known through Alice and CDL. This is a nice bunch.

BLUNDELL: I'm Gordon Blundell. I'm a child psychiatrist in private practice and a board member of the CDL.

HALLOWELL: Thanks for those introductions. Well, those of you in the audience, please, step up to the microphone and ask a question. Don't be shy.

BALLANCO: I'll ask a question to get it started. There's a problem that has come up recently with children who have Tourette's Syndrome who take Ritalin. Are you all familiar with Tourette's Syndrome? In the past, there has been a combination therapy that involves the use of Clonidine and the use of stimulant medication. Recently, there's been some suggestion that that's not very safe, and I'd like the psychiatrists on the panel who deal with psychopharmacology almost everyday to address that question.

BLUNDELL: I'll address it. I'm terrified of that combination. I have been since its inception. Using one drug with a child is aggressive treatment. If you use two or three, it's extremely aggressive treatment. We should be extremely careful. I think, in and of themselves, both drugs have been shown to be effective, but not together. That combination appeared in the literature a while back. It scared me then, and I haven't used it since.

DRELL: I think one of the problems is that there are inherent idiosyncratic things that occur with almost everything we do. That's what makes it difficult. We're talking about fairly rare problems with these medications; but if it's your child, you don't care about that. With better reporting, we have lots of things that lead to sudden death in a very small amount of people. These are medications that, by all intents and purposes, were touted as some of the best medications we have before the report came out.

The dilemma for the field is first to figure out exactly what happened. In this case, Clonidine and Ritalin together led to deaths in very few kids. They actually don't know if it's the combination. Many people say if you read the literature, it's just Clonidine. This is not a completely safe medication. No medication is completely safe. Tylenol leads to a lot more damage and a lot more kids dying than a lot of other medicines. They all have a certain morbidity. It may be just Clonidine, but we don't know. It's very hard to study things that don't happen very often. We don't know exactly what's happening. We never get a big enough pool of subjects to know. Each physician has to make that decision alone. Most of us would just as soon not do that. The idea of talking to a parent about some rare phenomenon that happened to their kid is very dismaying; but, we have kids that come to us who have been on this combination for thirteen years or longer. It may be three or four years. We've spent many years getting them in the right combination. Before the two medicines were put together, they were tearing up the classroom and the family. Then, it's a different decision. It's very easy not to make that decision now, but the decision that is made with the parents of a child who needs a combination is different. Cylert has just come down the pike with a new label and a certain amount of kids have died taking Cylert. What do you do with that? Each doctor has to figure that out what to do with the parents and the kids.

AUDIENCE: I have a question for the practicing psychiatrists about tricyclic antidepressants. In this month's *Journal of the American Academy of Child Psychiatry*, there were two additional cases of sudden death with tricyclic antidepressants. Many of us who treat children with ADD find that we often use these medications because the children develop side effects to stimulants, and these are the second-line drug. I'd like to hear from you, what your premedication monitoring for cardiac abnormalities is, and how you follow children on tricylclic antidepressants.

BLUNDELL: The whole thing with tricyclics is that they were the second drug of choice in the late 1980s for treating ADD after the psychostimulants. The whole issue of desipramine and sudden death hit the literature as with the combination of Clonidine and Ritalin. It scared me at that time. I know Joe Bederman at Massachusetts General is real high on the use of desipramine for treating ADD, and I think he still is even after these events. When you sit down with a parent, it's pretty hard to make a case to give some of these medications, with the risks involved, to a kid whose problems are not that severe. I've stayed away from the tricyclics for ADD for years now. I don't use them.

DRELL: The complicated fact is that Joe Bederman uses them for difficult cases in which there are two things going on—ADHD and depression—so a comorbidity, or two things at once. He says the chance of having someone die of tricyclics is equal to being killed by lightning. It's one in ten thousand. It's astronomical.

BLUNDELL: I'm not scared to use medication. I am fairly aggressive with medication. I do use the tricyclics for many reasons—in safe doses.

HALLOWELL: The tricyclic antidepressants are a group of antidepressants different from what are called the SSRIs, the ones you've heard about—Prozac, Zoloft, and Paxil. The tricyclic antidepressants were introduced long before these, and they were really one of the first medications ever used to treat emotional problems. They're called tricyclics because of their chemical composition. The problem with them is that the side effects they have can be lethal. Cardiac arrhythmias can be caused by the tricyclic antidepressants, and they can cause sudden death. In my own practice, I don't use them at all for that reason. I don't want to have to worry about the risks given the fact that there are effective alternatives. If there were no effective alternatives, I would use them.

For my colleague and co-author, John Ratey, the tricylclic antidepressants are his drug of first choice for treating ADD. These are noripramine and desipramine—the ones that have caused the sudden deaths. The difference is that he uses them in micro doses. He gives 10mg. The usual dose to treat depression is 200–300mg. He's giving what some people would call homeopathic doses. At those very low levels, although you can't say with certainty, the risk precipitously declines in terms of developing cardiac arrhythmias. So, John likes the tricyclics because you only have to give them once a day. The problem with the stimulants is that you have to give them two, three, or four times a day. That's why he uses these low doses of tricyclics. Does he get an EKG prior to starting the medication? Do you want to know what he does or what he says he should do? He says he should get an EKG before starting the medication. Certainly anyone in practice today ought to have a documented EKG on record prior to giving a tricyclic antidepressant for any condition. I start with the stimulants. I use, as my next choice, Wellbutrin or Bupropion, which is an atypical antidepressant. It's neither a tricyclic nor an SSRI. It does not have this problematic history of fatal arrhythmias. The worst side effect with Wellbutrin is that you can have seizures. So, in someone who has a history of seizures, you don't give it. Absent the history of seizures, I've had a good history with Wellbutrin as my second choice. I think the point we all seem to be making is that there are a number of medications that you can select in treating ADD, and we'll talk about other conditions as well. So, we would all like to choose those medications that are the safest.

AUDIENCE: How young can you give Wellbutrin?

HALLOWELL: The problem with all of pediatric pharmacology is none of these medications are approved for use in children. So we're always pushing the envelope when we do give them. It's the only way we're going to gather data. I have not used it in anybody under the age of fifteen.

DRELL: I think one of the problems is that the world of child psychiatry is really breaking down into two groups of those who are trained in two different eras—one before medications and one after. When I trained, I never gave medications. We did talk therapy and psychosocial intervention. So, I have to learn to use all these medications. Adult psychiatry, when I trained, was comfortable with medications. There are a whole new group of the younger child psychiatrists who really do not have the depth and breadth of psychosocial treatments or the history that I have. They're trained to give medications, and that sets up a dichotomy. You're talking to very conservative people here. There are many more people that are adventurous. One thing that is important is educating people about practicing patterns and the differences. We're in this transition to having us more comfortable with having a lot more medications.

HALLOWELL: Why don't each of us talk about what the generally accepted medications for treating the conditions mentioned are—starting with attention deficit disorder. What would nine out of ten child psychiatrists, pediatricians, behavioral pediatricians, pediatric neurologists agree that it's okay and effective to give a child with ADD?

BLUNDELL: I think the psychostimulants are the gold standard for the treatment of ADD.

HALLOWELL: Tell them what psychostimulants are.

BLUNDELL: Psychostimulants being Ritalin, Dexadrine, Cylert, and Adderall. These are what I use first, and I think they are the easiest, most efficient, effective intervention we have today pharmacologically. Secondary to that, I use Wellbutrin (and started very reluctantly), but I have had some success with it recently. I've gone younger with the use of this in patients who are in a hospital where I can watch them twenty-four hours a day. I haven't been aggressive with Wellbutrin on an outpatient basis as an intervention. Tricyclics are very well documented to help ADD. In the literature, they are probably the second drug of choice even though I don't use them. I trained in an institution where, when I applied for child residency, a very brilliant, older psychoanalyst ran the program. When I was accepted and did my training, a very young, pharmacologically minded man took over. I've met someone recently trained who is utterly aggressive pharmacologically.

HALLOWELL: Since the question of the tricyclics has come up, do you use any of them? Or do you just not use desipramine?

BLUNDELL: I don't use any of them for ADD to start. People will come to my practice that have moved from somewhere else who are on it, and it works for them. They've had no trouble with it. I wouldn't hesitate to continue it, and I wouldn't tell the parents "Your child needs to get off this drug." I would tell them what I think, and let them make that decision.

HALLOWELL: And how do the two of you feel?

BALLANCO: In addition to Ritalin, there's another relatively new medicine called Adderall which seems to be a real friendly kind of medication. Children like it. It doesn't make them feel great, but it seems to smooth out the feeling that the Ritalin or the psychostimulants produce. It is one of the psychostimulants. It's a fancy combination of different kinds of dexadrines. In some children, it lasts a little bit longer than the three or four hours that the Ritalin does. I do use Wellbutrin, and I use Tofranil, especially in adolescents, as a second-line medication. Sometimes I use it as a first-line medication if I think that the fellow is going to try to sell the stuff.

HALLOWELL: Tell them what Tofranil is.

BALLANCO: Tofranil is one the tricyleic antidepressants that we're talking about. I do get an electrocardiogram before treatment. I do get liver function studies and monitor the child a little more closely. I'm not sure about the cardiac deaths that have been associated with Norpramine. The higher the dose, the bigger the risk, but I'm not sure that a really low dose has no risk.

DRELL: I actually have a difference in my private practice in which I almost never venture beyond Ritalin. I've had very much success with psychosocial interventions. I have a second group of kids that I inherit. They usually come to me already on medications, and those are difficult. The ones at my state hospital come with the worst combinations of medications. That is an artifact of a lot of the mental health systems that don't have the psychosocial resources to do it right. So, we get concoctions of four medications including Clonidine. When you have a kid that's just ripping up everything and you don't have good resources to work with the families, people reach into their grab bag and pull out clonidine. Clonidine does work, and it knocks the kids out in some way. I can tell when a kid is on Clonidine because they fall asleep before the appointment. You have to wake them up for their appointment. In some ways, society is very happy with that switch. The parents may not be, but in some ways they are. I usually don't go to Clonidine. I think there are lots of cases that don't have appropriate parenting work. In my patients, which may not be the same as other private practices, I have not had to worry about going to tricyclics.

HALLOWELL: The goal in giving medication for attention deficit disorder is to increase mental focus. It is to allow the child to stay on the page as he's reading it, to stay in the conversation as he's having it, to stay in the lecture as he's listening to it, to remember something at nine o'clock that he thought of at eight-thirty. You've got to keep the target symptoms in mind. If you titrate the medication using side effects as your guideline as to when to stop and target symptom relief as when to level off the dose, that's a good approach. Bear in mind that the non-medication approaches should always be used simultaneously. What do I mean by non-medication approaches? I mean education—learning what this condition is. I mean accurate and complete diagnosis. Make sure there's not some aspect of the child you're overlooking as you're treating the ADD. What about depression? What about trauma? What about substance abuse? What about anxiety disorder? Have you got the whole diagnosis? Structure is real important. We're not here to talk about that, but I think you have to emphasize that as you're giving medicine, you're not overlooking the rest of the treatment—coaching, exercise, proper sleep, proper diet, sometimes family therapy, and psychotherapy.

Comprehensive treatment programs will make your medications work much better than if you just write a prescription and say, "That's the treatment for ADD." I just can't underline it enough. When we talk about medicines, sometimes we talk as if that's the whole treatment. It is not at all the whole treatment. It is a very effective component of treatment when it works, but it's not the whole ball of wax.

BALLANCO: A lot of children who have attention problems also have mixed-up learning problems. They also have mixed-up families. There are a group of children who have relatively pure attention deficits who have not had time to develop oppositional behavior. They have been well managed by their family and by their young teachers. They go into school, and they start to develop significant attention problems, even symptoms of ADHD, and they need Ritalin. That's all they need because, when you give it to them, all of the problems that they are presented with dissolve. That's some children—not all children. So, I disagree a little bit. I think that there are some times that you don't really need to use therapy. You certainly need to tell the child what you're doing and why you're doing it. You need to tell the family what you're doing and why you're doing it. The teacher needs to be involved. All of this needs to be done. But sometimes therapy beyond medication is really something that really needs to be very small, not anything real big.

HALLOWELL: But you would never say you don't want to have an accurate and complete diagnosis or that you don't want to have careful education.

BALLANCO: I think the accurate diagnosis is a pretty important part of it.

HALLOWELL: And education.

BALLANCO: You need to tell people what you're doing and why you're doing it.

HALLOWELL: Right. Right. And then structure?

BALLANCO: I'm not so sure about the structure. I think the structure might take care of itself except for the time between 6:30 in the morning and 7:30 in the morning.

HALLOWELL: Maybe our experience is so different. I think even some of these pure ADD cases that respond very well to medication are living in very chaotic households because the parents are also quite disorganized. These kids will do better if they are given simple structure like "What time do we get up? What

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time do we eat breakfast? What time do we go to bed? How much TV can we watch? When do we study? What are the rules of the house? What kind of language can we use and not use?" You cannot take parenting for granted. I build it into every treatment plan. Some people respond magnificently to medication; but if I don't ask about some of these things that we might take for granted at home, I'll never find out that they have anything resembling the kind of structure that children need.

BALLANCO: The reason I said that is that sometimes teachers say, "Well, all they're doing is giving medicine to this kid? They're not doing any other therapy?" My point is that extensive therapy may not be necessary.

HALLOWELL: Psychotherapy. Absolutely.

BALLANCO: You need therapy if there's a problem area. There are some families that are great and the kid was doing great till he went to school. The only time they have trouble is in school. Outside of school, this kid does great. Whatever that home environment is, it's very healthy for the youngster. Underlying all this is the assumption that this child is having a positive life at home. If that's going well and the only time he has trouble is when he's in school, then he should only have medication when he's at school. He doesn't need a lot of extra stuff on the outside unless and until he starts to have trouble.

HALLOWELL: I'm not saying at all that all kids need psychotherapy. Not at all. But, I really do believe that all of our patients need structure, and parents sometimes need help in setting that up. The same thing is true with exercise. I think exercise is one of the best things you can do for your brain whether you're a child or an adult. A lot of kids these days are budding couch potatoes. When I was a kid, I use to do this thing that is almost obsolete. When I came home from school, I would go out and play. Now, you plug-in, log-on, veg-out. Without exercise, all kids develop attentional, impulsive problems. It's such an obvious thing, but if you don't address it, if you don't look for it, you may be overlooking the obvious. That's why I suggest a comprehensive plan.

AUDIENCE: I had a student recently who said to me that now that he's on Ritalin, he notices that he's able to concentrate on other subjects. He said, "But now I'm afraid I'm going to use it as an excuse." And I said "No, well there's two different things—there's an excuse and there's a reason." A complete understanding of this disorder is very important. It's not an excuse for the kid who has it. I could see a clock ticking. He's going to have these problems later and begin to recognize or understand the disorder for what it is. The pill is good, but the children think, "This is a pill to make me behave." I don't want them to think that because you're setting them up for drug abuse later. The pill makes a tremendous difference, but it's teaching them how to use their own self-control. That's what I try to get across to clients. It's making them use their own strengths better so that they can make better choices. It's not the pill alone. Some of them just take it at noon, and they may have no structure. I think it's important to teach them control to lend structure in the evenings and also on the weekends and the summers if they choose not to be on medication.

AUDIENCE: The sense was that stimulants were first, Wellbutrin second or Imipramine or Tofranil, which is a tricyclic. The implication may be you try one stimulant, then you move on to Wellbutrin. In fact, if you've titrated carefully the dose of Ritalin, do you actually move on the Dexadrine or Adderall or another psychostimulant?

DRELL: The literature says that if you attempt to treat with one of the stimulants, if correctly diagnosed, a patient will respond about 70 percent of the time. Each kid is different in that a child may not respond to Ritalin and may respond to Dexadrine. If you start with Dexadrine and are not successful, you do not wipe out the whole class and move on to Wellbutrin. In the studies at NIMH, they found 90 percent effectiveness with Ritalin. Often, the medications are given up. I think people chicken out and change to another medication before they have had an adequate trial, or the psychiatrists haven't really carefully listened to the case. In many cases, medication is stopped because the medicine is petering out when you could increase the dosage so there is more per day. There are a lot of things you can try before you check out all the stimulants.

BALLANCO: I do the same thing. If one doesn't work, I increase the dose, make sure the child's taking it. If that doesn't work, then I'll usually go to Dexadrine. Right now, I'm starting to use Adderall as the second choice. One of the advantages of Dexadrine is that it comes in a long-lasting form. Some kids can get through a whole day of school without having to take a second dose which none of them like to do. I may end up trying three medicines to try and find one that works before I go on to a different class of drugs. If the Ritalin doesn't work, even though I try to be as accurate as I can be on the initial diagnosis, I go back and take a serious look at the diagnosis again. Am I sure that I'm going in the right direction?

BLUNDELL: I would never give up after one stimulant. I've read the literature about the 70 percent effectiveness. It is higher—the efficacy of these drugs in kids who are well diagnosed. Maybe I don't treat the most severe cases, but it's higher than 70 percent. You may run into side effects and trouble, but the effect of the medication is usually closer to 90 percent for me.

HALLOWELL: I would certainly agree that after one stimulant, you should try another stimulant. Some people who don't respond to one will respond to another. I have found that brand name Ritalin works better than generic methylphenidate.

BALLANCO: I haven't found that. I usually start off with the brand name and use it for about two months, maybe three months to insure that I know exactly what it's going to do in this youngster and how he's going to handle it. Then, I change to the generic. If I lose some of the initial benefit, I consider going back to the original brand name. The other concern that I have is that the HMOs buy their medications in bulk. They buy it from different manufacturers. One of the things I always ask if I start to lose benefit from a medication is, "Is this a new bottle of medicine?" It really worries me that a pharmacist can fill a prescription with two different bottles from two different manufacturers. You can have a range as high as a 30 percent difference in the amount of active agent. It could be very, very large.

DRELL: The FDA has to create guidelines. You have generic Ritalin, and for the generic to be legally okay, it can be within 50 percent of another generic either up or down. If you have a generic that's on the high side, and it's working; and then the drug store says "Oh, we got a good deal from another manufacturer, we have another lot and it's actually 50 percent below," you can lose the efficacy. At that point, people say the Ritalin isn't working. You'll go on to the next medication when the Ritalin was working and you just needed to up the dose. Those are some of the tricks of the trade. If you go to the drugstore, you get different things every time.

HALLOWELL: Abbott Laboratory was recently asked to send out a letter restating the side effects of Cylert which include liver toxicity, and there have been some deaths due to liver toxicity. Has this altered your use of Cylert?

BLUNDELL: I don't use it very often. I think I warned everyone who took it, and I monitor liver functions on Cylert. I've never been real aggressive with it. Most kids don't like to be stuck. I don't use a lot of it, but I thought it was a welcome warning that we ought to pay attention to.

DRELL: I never was big on Cylert. It's just another nail in the coffin as far as Cylert's concerned. They basically said, "We always knew it caused liver problems," and you always knew kids had them. The new insert says a certain number of kids will get liver problems. You can't predict who they are, and a certain number of kids will just go on to fulminate liver problems and death. They thought it was important enough to send it to every doctor in the United States. My sense would be that I don't think many parents will go very quickly to give that medication to their kids if you educate them. If I have people on Cylert, my job is to call them all up and say "Do you know this?" and "Do you want to continue or should we talk about this?"

BALLANCO: I've never found Cylert very useful. There are three children on the medicine whom I inherited from other doctors. When that warning came out, I called them up and said, "We need to talk about this." One of the parents decided to leave the child on the medicine, and two decided to take the child off. What's happened is an increase in background incidence of fatal liver disease in children who were taking Cylert. There's always a certain background or sort of a static number of people in the community with that kind of liver disease. It was 3 to 7 percent higher in people who were taking Cylert. It's much safer to take Cylert than it is to drive home in your automobile. Given that kind of a warning, you really owe it to your patient to tell them that there might be something that's much safer.

AUDIENCE: As a school site administrator, I have just received "training" to issue medication in school. You've just scared me to death with some of the things that you've said. Many of the children I come in contact with are on the generic forms of Ritalin. Are there any symptoms I need to be aware of that would cue me in that there is a problem with a medication other than that they're still hyper and still climbing the walls? Are there any critical symptoms that I need to be aware of?

HALLOWELL: I think we all resonate with what you're saying, and in these days of convenient medical care, you're constantly being asked all over the place to put yourself in the position of making assessments that you're not trained to make. You know, if I could answer your question simply, we wouldn't need to have medical schools. It's really unfair to have you leave here with a sense of total confidence. I think there's a reason that medications are so tightly regulated and controlled. If we, in the name of convenience, start asking school administrators to make medical decisions, we're putting the school administrators in a very difficult position. I can tell you that, with the exception of the tri-

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cyclics, as medications go, the medications used to treat ADD are very, very safe. The general principle of your having to make these kinds of medical assessments is not fair. I would say, if a child is in any way in distress, take him to his doctor. If you're there dispensing pills, you can't do a differential diagnosis. We get a lot of training just so we'll know when to worry and when not to worry. You need a lot of training before you can make the determination. That's a big professional judgment: "Don't worry about it." You're not in a position to make that determination. I would say if a child who's on medication presents any sign of distress, take it seriously. If I were running a school where non-medical people were in charge of medication, that's what I would tell them. I'd say any kind of distress, or any kind of problem should be taken seriously. Call the school doctor. Call the parents, and go through whatever your "fire drill" is for that kind of issue.

BLUNDELL: I totally agree, and where I practice there's a form to fill out. Every child who takes medicine at the public school has a form that they have to have filled out. And there's a question about that on the form. "What do I look for essentially?" I put "Nothing." I do not want to burden the school with the medical problems of this child that I think will create anxiety. I want them to have confidence that if they are worried, they can call somebody. The schools aren't hospitals, they aren't clinics; and if a kid's having trouble, you get them out of there. That's my opinion. I don't think the school needs a list of ten side effects to Ritalin unless they want it, and that's my approach.

DRELL: That's a good general point. I think the schools are burdened with all sorts of things, and it's often not that easy to just call up the doctor. With a kid with ADHD specifically, there's a baseline of what the kid is like before they had the medication. Then, there's a baseline of how they are on the right dose of Ritalin. If you change to a generic, and they suddenly fall off and they're acting differently than they were before their baseline, something has happened. It may be that Dad died. It may be that Mom and Dad are getting ready to be divorced, it may be the generic Ritalin, or that the kid isn't taking it. That would be as simple as I would get. If the Ritalin doesn't work, and you get the same target symptoms that you called the parents for and said, "Please take him to a doctor and have him seen so that he'll be better in school."

BALLANCO: I agree a tremendous amount with what Dr. Drell just said about what the child was like before. If he has distress of any kind, you need to call somebody immediately. The question comes up with things like headaches or stomach aches, and that's something that you need to make the parent aware of. I'm not sure it has to be an emergency kind of call because the medicine is very, very safe. On the other hand, if he's having trouble breathing or he's become confused, it's a different matter.

HALLOWELL: And when in doubt, err on the side of caution.

AUDIENCE: I've only started my training, but I've found that sometimes when I put a child on Ritalin, it works really well for the first couple of months and then it doesn't. I was wondering why?

BLUNDELL: There are so many variables involved that it's hard to answer your question. My experience is that when it works, used properly, followed over time, dosage, age, weight, and other variables, it usually continues to work. I haven't found a lot of experience with it losing its effectiveness. I haven't found that particularly true with the stimulants. Now, I'll have kids who come in and say, "I don't want to take it anymore," and they'll tell me it's not working. They'll do whatever it takes not to take it again. I respect that, and we can stop it and move on to something else. As far as the target symptom that I shoot for with that drug, however, if it works, my experience over time is that it continues to work.

DRELL: That's my experience. I have not seen a lot of this wearing out, but I have heard lectures from very reputable people who talk about a small group that have what they call tolerance. My hunch, and I've already said my bias, is that there's something else going on. In most of the cases, let's suppose that there was tolerance. It's very simple. With the stimulants, you just raise the dose. So if you have a child that came in weighing eighty pounds and had his growth spurt and is now 250 pounds, you might want to readjust the medications. You can raise the medications; and lots of times it gets back to being effective, or take the kid off the medication for a little bit. They say that it resets their receptors; and when you put the medication back on, it works again. That hasn't been my experience, but that's what people have told me.

BALLANCO: I think I have a different view. It seems like there's a fair number of kids that I'll start on Ritalin, and we'll find what seems like the best dose. Within the first month or two, we'll have to "ooch" it up a little bit. I'm not talking about 20–60 milligrams, but I'm talking about an "ooch" dose. At that point, there's usually a settling that lasts for years, but during the first couple of months, I find it not terribly unusual for that to happen. I warn parents that it might happen. I would worry tremendously if every two months, I had to "ooch" again. I'd go back and review this diagnosis; and if we have the wrong diagnosis here, we're doing the wrong thing.

HALLOWELL: When a medication ceases to work, look for some other reason, i.e., diagnosis may be incorrect, or I've seen the switch from brand name to generics. Someone covering for me will write a generic prescription, or the kid has secretly decided not to take it. So you're getting noncompliance, but the child is not talking about that. Consider those possibilities before you think, "Well, gee, it worked last month and it's not working this month." Another interesting thing about the stimulants is that the dosing does not seem to be related to milligrams per kilogram. Unlike most medicines, it doesn't seem to be that big people need a lot, and little people need a little. Some big people do well on a little, and some little people need a lot. Some people talk about doses of Ritalin, for example, in absolute terms—"My God, he's taking 80mg!"—as if that were bad. It's not in and of itself bad as long as there aren't side effects. There's no upper limit, theoretically, to how much you can take. I usually don't go over 120 before I try something else. But theoretically, without side effects, there's no reason not to. One of the major side effects of Ritalin that we haven't talked about is its negative press. That's probably the most dire side effect of all. As long as you monitor side effects carefully, you've got a wide range of safety in terms of dosage.

AUDIENCE: I know you said that the school should not have to make observations, but I just wanted to share two that we made at a school where I worked that actually helped. One problem was clearly at home. The child was diagnosed with ADHD. We believed the mother had raised the Ritalin dosage on her own. The child became somewhat robotic—zombielike. I suggested that the teacher call the mother, report this to her, and ask if there had been any changes in medication. I'm not talking about the educated, concerned parent. Sometimes we have really dysfunctional parents who are oblivious and will do anything. This mother said, "That's not so bad, is it? That he's behaving now even though he's robotic?" The other problem was with a child in kindergarten who developed tics, the big "T" word. Again, this mother was overwhelmed at home with three kids below the age of five. This child developed tics, and we had to specifically call her and say, "Please, call your physician."

DRELL: Both of those would fulfill the baseline criteria as there was a change from baseline. One minute they're not ticking, and the other they're doing funny things.

AUDIENCE: She brought up the big "T" word. Many of us who have treated ADD children for several years have had the unfortunate experience of them developing tics. I'd like to hear from the panel how they approach this problem and whether they use the second stimulant drug if a child develops a tic on one stimulant drug.

HALLOWELL: First of all, for you non-medical people, tics is not a form of head lice. Tics are nervous, involuntary twitchings—particularly of facial muscles. It may be part of something called Tourette's Syndrome which involves involuntary twitchings accompanied by vocal tics such as involuntary grunting or clearing of the throat or actually uttering phrases that are involuntary. Having defined it, now we can talk about what we do about it. What do you guys do about it?

BLUNDELL: First of all, I warn every parent about the risks of tics developing with use of psychostimulants at the inception. The other thing I make clear is to stop the medication immediately as soon as they see any evidence of this. If it's very mild and by the time they come to my office, I can't see it, I may, after they've stopped the medicine, try it again and look for it very carefully. If it occurs again, that's it; I write them off forever. I've never gone to a second medication in the stimulant class because of tics caused by the first. If I think the tic is real, I stay away from stimulants. I've had patients come to me after five years on Ritalin. The patient developed tics and worked through it. He stayed on the medication because he couldn't function without the medication. That is a parental decision that I will work with them on, but I'm very conservative on this.

DRELL: The only thing I would add is that Judy Rappaport, who is one of the world's experts and much less cautious than I am, says that it's a temporary phenomenon. We're talking about kids in which the ADHD is a worse problem than the tics. There are a lot of kids whose parents will say "Let's treat the ADHD," but I've never been brave enough to see somebody through.

AUDIENCE: This is a big issue because very often when you discontinue the medication, the child's behavior becomes extremely problematical. Often physicians are put in a situation where the parent comes in begging for you to prescribe a medication with the risk of a very serious side effect—a lifelong tic disorder or Tourette's Syndrome.

BALLANCO: I tend to sort of measure the tic, the child's distress, the family's distress and what we're treating. I discuss tic disorders with children and with the parents. I will sometimes continue the medicine in the face of a tic and will sometimes change the medicine. I'm not sure that I'm doing the right thing here, but

I'm not sure I'm doing the wrong thing either because tic disorders, by their very nature, are cyclic. You might be dealing with a real serious problem with the child's behavior or ability to pay attention. I was somewhat heartened to see that in the literature, people who deal with Tourette's are using higher doses than are normally used in the treatment of ADHD to help people deal with the symptoms of Tourette's Syndrome. If you read the literature on Tourette's ten years ago, it said don't use it. Today, if you read the Tourette's literature, there are a lot of people who are regarded as experts in Tourette's that are using the stimulants at relatively high doses.

AUDIENCE: Could we have some amplification from other psychiatrists who treat more Tourette's than we do? I've found the literature on the relationship between Tourette's Syndrome and psychostimulant medication very difficult to read in terms of what the current recommendation is with the use of medication and the relationship between the drug administration and the precipitation of Tourette's Syndrome. I would hesitate to prescribe the drug in the face of a family history of these disorders, but do we know that much about the incidence of precipitating Tourette's Syndrome in a child with psychostimulant drugs?

HALLOWELL: Without a family history?

AUDIENCE: Without a family history.

HALLOWELL: It's very low. I think it's about the risk-benefit analysis. As long as you sit down with parents and the child and say, "Look, this is what we're up against. We have this medication that could help you. On the other hand, it might uncover an underlying tic disorder. He may start twitching. Usually, that twitching is reversible by stopping the medicine, but then you lose the benefit you gain from the medicine." This is all shared up front. Marcel Kinsborne, who is the Boston tic authority, says he's never seen an irreversible tic. I'm sure there have been irreversible tics, but not Ritalin-induced irreversible tics. The worst that happens is that you end up back where you started. You've got the symptoms and no tic, and you've uncovered an underlying tic disorder. As long as you are honest and open with parents and kids about this issue, it becomes a risk-benefit analysis. In some kids, the tic is sort of mild, and they want to live with it. I think this is something that doctors worry about more than it actually happens. It certainly is something that we have to wrestle with; but I think as long as you advise them about what you're doing and everybody understands it, you're on safe ground.

DRELL: It's tricky. The early stages in many kids with Tourette's looks exactly like ADHD and is misdiagnosed as being ADHD. Then, you give the medications, and they get a tic. The research says that almost all the kids that get tics when they are on Ritalin are probably predisposed to it. Somewhere in the family history, it was there. Lots of times there is a predisposition, but they never get the stress or the medication to trigger tics. The idea that a medication I prescribed can give somebody a tic disorder that they might have for a long amount of time, even if it calms down after a while, is a sobering thought. They also found that as one gets Tourette's, it often looks like obsessive-compulsive disorder. There's something underlying between Tourette's, obsessive-compulsive disorder, and ADHD. They're looking for the genetic links between that.

AUDIENCE: Ten or fifteen years ago, they were teaching us that if you triggered Tourette's, you've put this person in permanent danger for the rest of their lives. Current studies are suggesting that that is not the situation. Family history certainly will help you try to sort that out and aim in the right direction. Is it Tenex, a cousin to Clonidine, that is used to treat Tourette's? Is there something that we were treating with both of those that ended up causing trouble? Or is there something like that that we could look for? The pattern with Clonidine usage, where I work, is that a number of specialists prescribe the Clonidine just at bedtime, partly because the kids have trouble going to sleep. Some of these kids always have trouble sleeping. Some of them have trouble after they get on stimulant medicines and we're looking at balancing that. The reason that they've been selecting the Clonidine in addition to the stimulant medication, was for the oppositional defiant and the angry young person. There's a proper term for that.

BALLANCO: Intermittent, explosive behavior.

AUDIENCE: Intermittent, explosive behavior? That's what I'm trying to say. It seemed like there were a few kids that weren't drowsy from adrenaline from not sleeping. I was at a meeting in May where people were talking about the Clonidine, so I took everybody I had on clonidine off. People were saying, "Oh! Please put me back on Clonidine." They'd been on it a long time; and we were not managing the child, so I put him back on it, but I didn't feel real comfortable about it.

BALLANCO: When the question was raised about two years ago, there were three sudden deaths in children on Clonidine and Ritalin. The preliminary investigation showed that one of these children was not even on Clonidine, that another one of the children had a massive dose, and the third child had had large doses of other medications, so there was a real question about it. It seems like, subsequent to that, there have been other deaths. Whenever that starts happening, I begin to wonder that there's something here that doesn't quite fit. I still have two children on that combination; and it makes me very nervous, but these kids are only on that combination because they had such impulsive aggression that there was no other way to manage them. They're in family therapy. They're getting psychotherapy. They have a social worker at school that sees the kids. One of them was very young when he was started on this combination, but it's the only thing that has allowed him to remain in society. While it's a difficult choice, when you've tried everything else and nothing else works, I don't know what else to do under this situation.

DRELL: There is very little research on Clonidine. Denny Kenwell, who is one of the experts on ADHD, basically said he hates the drug and doesn't ever use it. Other people will swear by it. There have been very, very few studies, most of them done by Bob Hunt. He also did very few studies on the Tenex. Having said that, there are some kids that are just unmanageable. Clonidine seems to help. It's used a lot. We get a lot of kids who come into my hospital with Ritalin, Clonidine, and all sorts of other things.

HALLOWELL: If I can give some perspective for non-medical people in the audience, we are talking about difficult, problem situations. We're talking about medical management of a very distinct minority. I'm in private practice, and I treat 90 percent of my cases of attention deficit disorder with Ritalin. There are no complications other than appetite suppression. Once I get the dose right and the timing of the dose right, sleep's no problem, tics are no problem. You have to watch the appetite and keep their weight stable, but other than that, it's very safe and effective most of the time.

DRELL: In my private practice, I don't have anybody on Clonidine or Tenex. At my hospital, I do.

AUDIENCE: So, would you say most people in that condition are hospitalized?

PANEL: No.

AUDIENCE: Walking around the streets?

HALLOWELL: There certainly are kids with severe aggression problems walking around the streets. I work closely with John Ratey, who's done a lot of the pharmacological work on aggression, particularly the use of beta blockers and treating severely aggressive people. I think the keys to the management of aggression are non-medication approaches. I really think that we have got to stress language development, exercise, and structure when it comes to managing aggression. I think that throwing medications at seventeen year olds who have grown up with no language, no structure, and no kind of exercise is a big mistake. It's like trying to cap the thing at the wrong end. You have to start working with these kids at younger ages. If you take someone and deprive them of language, hyperstimulate them the way kids are in today's culture, bombard them with media constantly, give them no sense of structure, supervision, rules, or regulations, and they do not get enough exercise, and then throw in drugs as they hit adolescence, you're going to have an epidemic of aggressive behavior. To say, "Well, they need Clonidine" is missing the point. What they need is a whole, concerted, non-medication approach to aggression management.

AUDIENCE: I'm a kindergarten teacher, so I don't know much about what happens to older kids. And I'm concerned. What happens when they're on Ritalin at a young age? Do they keep taking it their whole life? Do they stop when they're a teenager? Are there problems with it? When do they quit? And do they get any better or does it ever stop?

BLUNDELL: I reassess that every single year. I've never committed to a parent of a five year old, "Your child is going to be on Ritalin until they're eighteen" or thirty-six or whatever. That's a year-by-year thing depending on the patient's response and the environment. I've had kids who I've put on Ritalin who'll get a second grade teacher who says "I can handle this child. I like these kinds of kids. They don't need medicine in my class," and they do beautifully. But, in your public school class of thirty where the teacher's pulling her hair out and can barely manage, it's a difficult situation. I don't commit kids to Ritalin for very long periods of time. It's a year-by-year thing and we'll reassess more than every year, but at least every year. A lot of kids will start on the medication, teenage boys, who have done well on it say, "I don't want to take it." I say "Okay, now that we've established where you are in school, we're going to stop it in January and see what happens. Go back anytime, but if you do well off of it, you just let me know." I play it by ear. It's very individualized and I never have any rigid rules about that.

HALLOWELL: I'd certainly agree.

BALLANCO: I'd like to really underline that. Most mornings, the parents can tell you whether or not the child still needs medicine. If it's for overactivity or inatten-

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tion, it's a different thing. If there is to be a trial off the medication that is either parent or physician initiated, the worst time to do it is the beginning of the year when nobody knows the kid, and the kid's going into a new environment. January is the ideal time.

AUDIENCE: I'm a learning specialist in a middle school. Are we using medication to avoid dealing more effectively with school problems? What can both teachers and physicians do? I realize that pediatricians aren't reimbursed for counseling about behavior monitoring. What kinds of things do you say to parents? What are some things that should be said to parents to encourage them to go beyond the medication? It seems that medication is prescribed, and that's the end of it. What can I say as a learning specialist? How can I get your ear when I try to communicate with doctors? What can I say that will get us together on this and make it an interactive thing?

HALLOWELL: I think that the school communication with the physicians is a place where we M.D.s have basically dropped the ball. We have not traditionally done a very good job of making ourselves available to school people. Doctors tend to stay in their offices and not make school visits. They tend not to have telephone hours for teachers to be in touch with them. I think that's changing. The more I talk to M.D.s, both pediatricians and child psychiatrists, we see the tremendous benefit of improving communication with schools. The schools are ready, willing, and able. Teachers will say, "Look, I'll meet you on the Boston Common at midnight. You name the time, the place, I'll be there. Please. Let's talk." Training programs are emphasizing this more and more. It's in everyone's best interest for the M.D.s to get out of their office and either over the telephone or even better, make a school visit. I've seen teachers just bend over backwards in frustration because they can't get through. I'd urge the schools to ask the parent and the professional, "Please come in. We can have a short meeting. It doesn't have to take up too much time." Or failing that, "Please, let's make a telephone relationship where I can be in touch with you. It's in everyone's best interest." Are we using medication to avoid dealing more effectively with school problems? Sure. It's a problem. Medication is quick, and counseling is long. Education takes work. We shouldn't be doing that. It's driven by the times. I keep coming back to these non-medication approaches that may sound not terribly fancy, but my goodness, I've seen an awful lot of school and childhood problems solved by structure, language, exercise, supervision, attention, warmth, diet, or sleep. Medication could be thrown at them, but that would be not a wise thing to do.

BALLANCO: I think that the only time medication even ought to be considered is when the problems are significant, and you've tried simple things. By simple things, I'm talking about things that don't involve a lot of money—using common sense. Most children who have attention deficits get into trouble because they cannot monitor themselves. It's very hard for them to learn how to monitor themselves. It takes a long time for them to learn how to monitor themselves. This is my personal bias. I think the analogy of reading glasses is a very strong one. If the light's right, and the print's big enough, I can read. But if the light's a little bit dull, or if the print's a little bit small, I can't read and without the glasses, I'm not going to be able to read or I'm not going to be able to read for very long, or I'm not going to be able to read very effectively. So, I think that most children who take the medicine benefit from it tremendously. Most of the time when I see kids, it's after teachers and parents have tried all of these other things. Sometimes, they need some organization and some structural ideas. When you start suggesting exercise and diet to most people, you get the same treatment that you do when you suggest that they stop smoking. "Sure, doc." In these little kids, they run around all the time anyway. To get them to engage in a regular exercise program is very, very difficult. A lot of children are being medicated. It certainly is a lot easier than the other strategies. For most of them, the cost benefit and the effect is better with the medication.

BLUNDELL: I think there's a very philosophical change in our society about the use of medication, and we are enormously more aggressive than we were ten or twenty years ago. Things that would have terrified people a long time ago are taken for granted now. I believe that Ritalin helps part of the brain and helps these children function. I'm aggressive with medications. My opinions have changed over the years of clinical practice. This is a cost-effective, expedient-driven force that sometimes we use medication instead of doing other things that are hard, difficult, time-consuming, and require a lot of effort that people don't want to put in. That's not to say that kids don't do great on Ritalin. They do. But there are forces at work here that pressure us all. I have the luxury of spending an hour with a patient. Most pediatricians certainly don't.

DRELL: It used to be that parents were frightened to death of the medications. Now, there's been a change. I used to have to convince people to use the medications. Now, I have to convince them not to use the medications and to add these other things. People want a quick fix. A terribly interesting thing that's happening now is that books are basically saying "Nothing is your fault. It's a brain disorder." ADHD is much more complex than that. Poor parenting is a brain disorder too, and it leads to brain disorders in the kids.

AUDIENCE: My question goes right along with the previous question. I teach second grade, so I get the parents who have been battling with the decision for two years and now are considering medication with trepidation. Parents tell me that their physicians are spending ten or fifteen minutes with them. They either decide to do medication or not. I'm wondering—is this really the best place for us to be sending them if a decision needs to be made, or should we be sending them to a specialist? Do you feel that most family practitioners are comfortable with ADD or ADHD?

HALLOWELL: It does not matter the degree of experience the person has with these disorders. Send the child to someone good. Someone good can do an adequate job in fifteen minutes. It's not common, but believe me. Someone says, "I went to see Dr. Ballanco, he spent fifteen minutes with me." If they went to see Dr. Ballanco, I know those fifteen minutes were enough. So, you want to know the person you're sending the child to. There are some excellent pediatricians, excellent family practices, excellent child psychiatrists, and excellent pediatric neurologists. You can't tell by the degree a person has. What you have to go by is that person's track record. Talk to people who have been there before.

AUDIENCE: They're primarily going to whoever their family physician i[illegible]

HALLOWELL: There are some family physicians who have tremendous expertise in this domain. There are others who don't, and they just say, "Ok, I'll give you a trial of medicine," and that's the end of it. So, you need to investigate a little bit more than that.

DRELL: If a family practitioner doesn't refer further when he feels that they need it, then I would question under the rubric of good.

HALLOWELL: Exactly. Precisely. Last question.

AUDIENCE: I think it's incumbent upon us as educators, as parents, as children's advocates, to pick up that double-edged sword—the fact that medication is cost effective and successful and allows children who might not otherwise be able to function to function. Simultaneously, we need to advocate that we get more light and that we make the print bigger.

HALLOWELL: Very good. Thank you all. It's time for us to adjourn.

CHAPTER 21

How to Help at Home

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> *I looked on child-rearing not only as a work of love and duty but as a profession that was fully as interesting and challenging as any honorable profession in the world and one that demanded the best that I could bring it.*
>
> —Rose Kennedy

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BROOKS: I find the best approach sometimes is to look at why we would have this topic of "How to Help at Home," what some of the obstacles are in terms of what parents can do at home, and home-school relations. We all know there are problems with the very issue of what a parent's role is in a child's education.

THORNE: One of the problems that I see that is really, really common is something called the "blame game." Teachers blame parents, parents blame teachers, teachers blame children, children blame teachers, parents blame children, children blame parents. We need to stay away from the blame game and work together as a team because educating a child is everyone's responsibility. It's the responsibility of the teacher, the parent, and the community at large.

Another difficulty that I see is that while we have many laws to mandate certain accommodations and modifications for children, the child is still not being given these accommodations and modifications in a humane way in the classroom setting. So, in spite of the fact that we have laws, often what happens is that the letter of the law is followed but the spirit of the law is not.

Still another problem that I see is that parents come in and they see some difficulty with their child. They go back to the school environment and the teacher says "Oh, the child is doing well," and the parent is saying, "I know there's something wrong—there's a piece missing." I think that we need to pay more attention to parents.

BERMAN: The difficulty that children with learning differences have is seeing themselves as capable and worthwhile people who can accomplish things. So many times the child works in school having to face constantly the things that they have trouble doing. When they get home, their family, sometimes and usually with the best of intentions, thinks that they have to work on that again. If I constantly have something painful happen to me every time I talk to somebody, I think I wouldn't want to talk with them very much anymore. At home, parents need to worry less about being extensions of the school and spend more time helping their children find the things that they are really competent and good and lovable at. So, I'd like to see parents get out of the business of educating kids at home.

BROOKS: What happens when you get the call or warning slip from the school that says you should be doing something . . . in terms of homework or other things?

BERMAN: There are a couple of considerations: one is how is the child doing in terms of their own attitudes—is the child really eager to work on material at home? Odd as it may seem, there are some children who are, but most of them aren't. Most of them need a respite from this material and I advise parents to resist doing those things with the kids at home. I think that parents can provide some structure to the child's day, provide some organization of time when the child is supposed to work on their assignments. The only thing that I find consistently results from parents working with kids at home is dissension between the parents and the children, and more difficulties behaviorally. I don't see that it gets us anywhere. I can see the logic in thinking that it might, but children that have trouble in school, if they bring those problems home, can start to cause problems at home. Home has to be a sanctuary where they're not going to run into those difficulties.

BROOKS: What do you see as homework? If we were to redesign our whole educational system, would we have anything called homework, and what would it be?

THORNE: The role of homework is to reinforce what is learned during the school day. I think that sometimes parents can get into a situation where they're trying to teach their child at home, and it becomes very adversarial and confrontational. That is not good. But my philosophy is that education is ultimately a parent's responsibility and that's where the buck stops. Many times parents cannot work with their children at home, but we know that there are a lot of children that have some very severe learning difficulties and are not going to learn everything that they need to know in a school setting. So, while a parent may not work with that child directly, the parent has to bear some responsibility for education beyond those several hours in the classroom. It may be to get a learning specialist, or an honor student, or a college student to work with that child in the afternoon. But there are children who do need school work extended beyond the normal school day to keep pace.

BROOKS: How many of you in the room are parents of children with school difficulties? Quite a number. Would anyone like to share your thoughts on homework?

AUDIENCE: I'm a first grade teacher, and a lot of my parents have come back to me and said that I don't assign enough homework. My philosophy is that homework is just a reinforcement. These children need to play, to have fun; they need to be children. If my student has to spend more than ten or fifteen minutes on one particular assignment, then I didn't do my job. There are those cases with children who have different learning habits. That's my job again, to make sure that I can adjust to that student or help that student in a different way. But homework isn't meant to sit for hours at a time. It's just an extension, and they should only need a few minutes.

AUDIENCE: What Dr. Berman says about parents keeping out of homework is fine if the child can manage it alone. But there are so many children who struggle, who have learning difficulties. What may be just a few minutes of homework to first grade students can go into an hour or two hours in children who have difficulties. We can't tell the parents to just stay out of this when they want their children to succeed in school. They're going to help them if they're not picking up what they need in the classroom. That's why we really need the teachers to know how to work with these children.

AUDIENCE: The woman who said there shouldn't be any homework in elementary grades—I can sort of agree with that, but what happens to children in middle school when they've got four hours of homework and they haven't been able to gradually build up to this kind of thing?

AUDIENCE: If they're there, we will teach them how to do the homework that is necessary, even though I don't believe it is necessary. People say that about middle and middle says it about junior high. I'm preparing them for when they get to junior high and those expectations. The job of the junior high people is to teach them what they need. I mean, when a child is just starting to crawl you don't have them walking; they're developmentally not ready for that. So, when they're ready, work with them then.

AUDIENCE: I think one of the problems we face is when we make the sweeping generalization that we ought to do homework all the time, or we ought not to do homework at all. And, I think another problem that we face is to finally decide what it is we mean by homework. When I say homework, some people get a picture of this workbook activity that I fill in the blanks sixty-seven times to demonstrate that I know the relationship between a verb and a noun. I think there is a place for extension of what I learned in school, and I think that when those extensions are meaningful and when the time-text of that task is driven by some meaning, then it's advisable. I think to do it every day as a matter of course results in a conflict of what is better for children. So, the issue for me with homework is: is it meaningful, is it mandated every day, and then is it used to, in fact, extend and further apply what I know?

BROOKS: Those are all excellent.

AUDIENCE: I am a parent with an ADHD child. Due to the homework issue, we fight. The very first question we hear is, what do parents do when their child is unable to reliably copy their homework and bring it home? And I need a discussion from you all. I'm here because I have a school that has said it is the child's responsibility. I know all the buzz words this school uses. What do you do with your very typical ADHD child who walks out of the classroom without his homework?

BROOKS: How old is he or she?

AUDIENCE: He is eleven years old.

BROOKS: When I went to college, almost everyone of my college courses had a syllabus for the whole year. So I had everything I knew I was going to do for the year there and, yet, with kids, we don't do that. I very seldom ever copied homework from the board. I really got a lot from the syllabus. I've done several things. One is a buddy system—having a kid whom your son likes copy things off the board. That's one approach that makes it a little easier for the teacher if they feel it's going to be burdensome. Another thing is for a teacher to sign where the child has written the homework assignment down. I've seen kids write their homework assignment, and the page numbers get mixed up or whatever. I have had teachers willing to just write the homework down for the kid. Many kids, even if they write it down, even with the buddy system, somehow between the classroom and the home, everything gets lost. There is a teacher I'm working with now who has a policy. She sends the homework for the next week to the parents by mail. I said, "That's amazing of you." She said, "I'd rather have that. Where I'm working closely with parents, kids don't get as nervous about it. I'd rather do that and have a comfortable kid in the classroom than have a kid being worried all the time about whether they're getting the homework down." I have one teacher now who is e-mailing home, which is really interesting to me. Those are just a few of the thoughts that one could start to build in. The one that has worked really well is just having a buddy in school.

BERMAN: Yes, I've found that the buddy system works very well too. It's interesting that some people will accept a buddy student on the college level because it's very common to have scribes or other people in a college class taking notes, writing things down for somebody else who can't do that as well. And, yet, when you suggest the very same thing for younger children, people get very nervous about why younger children shouldn't do it themselves. The other thing I wanted to mention is that you can approach it as a problem-solving task with the child rather than as a blaming thing. Maybe for one reason or another, the buddy system won't make sense for this child. Maybe the teacher is willing to send them home. If there are five strategies, and if you sit down with the child to talk with them about what can we do so that you can do this correctly, they get some ideas. If you throw out some ideas to them, there are some that appeal to them that are always acceptable to the teachers involved too. And, it gets the parent out of that police role, out of that role of having to harangue the child for most of their dinnertime hours about getting homework done. So, I think a number of these systems can work, and it's just a question of working out with an individual child which one works best in that situation.

BROOKS: I mention Myrna Shore's book *Raising a Thinking Child*—I've been very impressed with how you can sit down four and five year olds and say, "This is

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a problem here, can you think of two or three ways to solve it?" Some of the most temperamentally difficult kids will sit down and come back with reasonable solutions.

THORNE: I agree with everything you all have said.

BERMAN: When we say that the child has to be more responsible, I really look at that as akin to blaming the victim. Sort of, it's his fault that he's not learning to do this right. And, it's not their fault. Part of our job as parent or teacher is to help figure out a way to get them over this little intermit. Maybe just copying homework down correctly is enough of an accomplishment to solve a number of problems. Together we need to figure out a system for each child to be able to do that without making it seem like a blaming situation.

BROOKS: The question that always gets to me is when I go to a school conference and they say, "Dr. Brooks, he or she could really do it if he wanted to." And I say that whether they want to or not, there is an obstacle here and we have to help them to feel more comfortable. Some kids have just given up because they feel, "What's the use anyway?" And so I always say, "There is an obstacle. I don't know if they could if they wanted to; we have to figure out how do we create an environment where we might see whether or not the child is capable of doing it." Barkley once said, "If someone was born without legs, would you get angry with them because they couldn't walk up the steps as quickly as someone else?" That is an obvious disability, right? We're talking about hidden disabilities. We do blame kids. It's really a problem because then it's like, "If the kid was motivated, they could do this." And we don't stop to think about how you help a kid to feel more comfortable to take appropriate risks.

THORNE: Also, Mel Levine uses the phrase "moral domain," and I think it's a very good one. We need to keep this out of the moral domain. It's like the statement that the child can do it if he wants to and he needs to be more responsible; those are really moral statements. I know that oftentimes teachers make statements that there are some children who cannot copy an assignment in such a fashion that they can even read it when they get home. They may have something scribbled on the paper, but it is not legible enough for even them to read. Sometimes the only reasonable alternative is for the teacher to write down the assignment, and there are many teachers who are willing to do that. So, I think that one thing we need to look at is how many of these children you have in your classroom. I know that teachers have a lot on their plate; but how many children are in any one single classroom that the teacher would need to write down the assignments for?

AUDIENCE: I have an eleven year old and I see a lot of the same things, but my daughter herself found the buddy system, and that works well for her. If that didn't work for her, I might talk to her teacher and say, "We're not getting this homework thing and I know that's really important, but it's not working anymore and I need to know what assignments she has so, if it's not too much for you, you can give me a list of what we need to accomplish. Then I can help her more and I can get it done." Somehow my daughter was able to find a way to copy it down herself, and then all the teacher had to do was sign off. But, it changes, it's not always the buddy system, it's not always the teacher giving her the assignments, and it's not always that she's copying it and the teacher signing off. We use everything that works at the time. And I know that I have been instructed by professionals that we need consistency, we need structure, but structure and consistency don't always happen so I just use whatever I have that's working at the time.

THORNE: Good strategies.

AUDIENCE: Whenever I worked with teachers and we had this issue of homework, the teacher would say to me, it's just so difficult to write down all these specific things and so, when I work with parents, I suggest that they become part of the solution.

BROOKS: I want to get back to one of your earlier comments. I had a kid with learning difficulties tell me that going to school each morning was like climbing Mount Everest; and when he came home, he was climbing it again because of the homework he had to do. The reason this kid was referred to me was his parents were ready to kill him, and he was ready to kill his parents because of homework. If you look at any of the research now in ADD, the Achilles' heel with kids with ADD is rote learning. Sidney Zantal and Russell Barkley say that these kids need as much novelty and hands-on experience as they can get. And if you don't give it to them, they satiate quickly on stimulation. What is the nature of the homework, and how do you help kids learn at home without it being rote learning? Imagine, most of it is writing; how many of these kids have writing difficulties? You can predict in advance that they are going to have a great deal of difficulty doing it. I think it does feel like they're climbing Mount Everest twice in one day.

AUDIENCE: I'm the parent of a child with severe learning problems. Homework is a nightmare—to help my kid go through what they didn't get. Every single night of my life, I just want to drive past my house. It goes on and on and I say to myself, "What's the point of it?" I deal with this every day with other people, too.

AUDIENCE: As an administrator, the kind of stuff she's talking about makes me very sad. It's really upsetting to me because I see our job as turning kids on to learning. The only reason we connect the home is to improve and strengthen learning and to help children enjoy learning. One of the things we've done this year is bought journals. This helps the communication between the home and school. If they have no homework, then they still have some work to do. Our kids should not spend more than thirty minutes on homework. If they do, I would love for parents to come to school and work it out. What we want to talk about is more of a home study where we make a list of things that they can do related to what they're studying. For example, if we're studying animals, they can take a trip to the zoo and talk about the things that are going on there, or they can look up some things on the computer. We need to make a list of a variety of things that kids can do. Parents can select from the list. They can maintain control while also providing a worthwhile learning experience for their child. We're connecting the home and school. That makes more sense to me than reliving the trouble they had at school. That makes no sense to me.

AUDIENCE: I've been teaching for twenty-four years. I teach six to ten year olds. I hear parents saying, "You're not giving my child enough homework." I suspect that the reason for this is that the child is driving the parents nuts at home. They don't have enough to do with the child. Some of the homework I've seen is just about what's been done in the classroom. We want the child to become a life-long learner. I like the idea of only assigning something on Monday through Thursday and not having three-day assignments over the weekend. Let's stop calling it homework and call it "life-long learning." It's something a child does, not just at home, but on the bus, at home, in the car pool.

BROOKS: I firmly believe that, based on the age of the child, there should be a maximum amount of time that they spend on homework. Some can only do one thing in an hour where others can do five things. At some point, it becomes counterproductive anyway. Kids who are learning disabled and perfectionists at the same time want to stay up until eleven-thirty at night. There have to be limits. It would be like me suggesting that we all go out and run two miles. Some who jog regularly would do it quickly. If I said to you, "I don't care if it takes you four hours," I don't know how many of you would continue and how many would say, "This guy Brooks is crazy." That's how many kids really feel. I've seen some very creative things that teachers have done including watching TV and doing an analysis of the amount of aggression that was on a TV show. The next day the kids come in and discuss how much aggression there was, and they've done a research project.

When I was a principal at a locked-door unit, there were kids who were always imitating the Three Stooges. The teacher actually assigned them to watch the Three Stooges, and they had to keep track of all of the aggression, verbal and physical. Then, they developed an aggression module that was so good that they invited the rest of the hospital to come in and learn other ways of handling aggression rather than hitting someone over the head. The kids' own aggressions went down, and they didn't see it as homework. Yet, they were doing this research project, and they never saw the Three Stooges in quite the same way. They were writing a manual. They were doing things that were much more relevant to them. If we had called it homework, they would never have seen it that way. They'd say, "We're doing a research project."

BERMAN: Parents have a unique interaction with the child that's different from the teacher's. The parents can take advantage of the benefits in that relationship. What parents can do that is unique to their setting—a one-on-one or two-to-one situation—is work on the child's interest in learning things and help them understand how some of the everyday things that they do might relate to what's going on in the classroom. It's being able to help them appreciate that learning can be interesting. It can be something they can do. It can be meaningful in their lives. If parents can get some idea of the kinds of things that are being worked on in the classroom, lots of everyday things that come up can be used to increase the child's interest and motivation to learn more about it. This, in turn, will feed back into their attitudes at school.

AUDIENCE: I've found that the best thing for me to do is to use homework as a tool for communication. I would give out a homework sheet on Friday that would involve something like, "How many spoons are in the kitchen drawer?" or "Look around your bedroom and tell me five things that begin with a *K*" or "Watch something on TV and retell the story." The answers would be different for every child. They'd get it on Friday, so the parents had time over the weekend to do it. It wasn't much, but communication with the parents was important, especially if we consider how important parents are to the education of their child. Including the parents and keeping them informed of what is going on, even the next week, will encourage parents to take their children to cur-

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rent events in the community. Things like that are more comfortable than getting homework done.

AUDIENCE: I am a parent of a first grader and a middle school teacher. My son's teacher does very creative assignments like, "Stand on one foot and recite this," or "Tell your mommy something about yourself." I think that's really wonderful. My son enjoys homework because of those simple, silly assignments. As a middle school teacher, I often ask myself, "How can I adapt this to the middle school level?" Something happens to homework once they reach the fourth grade, and it stops being fun. Maybe we can't bring it down to that level, but I think we have a lot to learn from each other. I always watch the assignments closely and think, How can I adapt that to the eighth grade?" so that kids will come back and say, "Wow, that was really fun!" We should look to the resources in our own school for ideas that we can adapt.

BROOKS: Your comment is intriguing—that it's easier on an elementary school level. I wonder what some of the teachers who teach kids over the age of eleven do?

AUDIENCE: I'm working with five schools, and we have them write dialogue cards. Homework is this barren thing that I do alone. We are saying that we would like parents to be in a conversation, in a dialogue, about this information with their children. There's no specific answer that has to come back a certain way. We're going to have a dialogue and talk about this skill or these ideas. We're extending that information. So, for the higher grades, the dialogue helps make homework more relevant. Let's say we're doing a simple multiplication extension. What is multiplication? It's how to add fast. Why do we need multiplication? So, there's conversation among teachers who sit down and decide that they would like to reinforce the value of multiplication. The beginning of the dialogue card starts like this: "We're going to work on multiplication today." Mom and Dad want to help you, and we think multiplication is very important. They don't have to come up with why it's important. It's important because it's written there on the card.

THORNE: Maybe if children need some alternatives from which they could select their homework. If they had a homework menu where there were different things they could select to demonstrate their knowledge, the traditional student may prefer a pencil and paper task where a non-traditional student might prefer a hands-on task. At ten years old, one of my sons said to me, "I'm not like you Mom. Getting good grades is not worth doing homework." When he was fifteen, he said, "Nothing that you can do to me is worse than schoolwork." If he had had some alternative methods of demonstrating his knowledge, he may not have been so turned off about learning.

BROOKS: That is one of the most important things. At the school that I mentioned earlier, they were always giving kids choices. It was writing, but they'd say, "All you have to do is five of the eight problems. You decide which five." They found that they were getting a lot more homework in. What you've brought up is even more important. Which kid should be using a tape recorder? Which kid should be writing? Which kid should be drawing their homework assignments? What you really want to see is a continuation of a love of learning. That is one of the most important things. I remember that one of my teachers taught us fractions. I was a big Brooklyn Dodgers fan, having grown up in the streets of Brooklyn. The teacher said, "How do you figure out batting averages?" After that, all I wanted to do was math so that I could figure out batting averages. It was very interesting. All of a sudden, the whole class was turned on to how you figure out batting averages and percentages. It may sound silly now, but it never really dawned on the class that they were doing math.

AUDIENCE: It's obvious to me that there are several parents here who are dealing with the same things that I deal with. What are we going to do about kids at home? For me, homework is a nightmare. We sometimes work on it until midnight. Homework is part of the grade; and if we don't complete it, we don't get the grade. So, even though the thought of using the weekend to pursue these wonderful things may sound good, to a parent who is tormented by homework, doing homework on the weekend is not a fun thing. It's not a viable alternative to us because we've been stressed all week with homework. A lot of our homework is not really homework in the sense that Dr. Thorne has defined homework. It's not a continuation of the learning that takes place in school. It is the first learning that your child is having because they didn't get the assignment in school. They don't know what they're doing, and you have the homework to do on top of that initial learning.

BERMAN: This illustrates one of the biggest problems that we have in schools. What would happen if you actually said something to your child's teacher or school about how inappropriate this kind of atmosphere is?

AUDIENCE: I'm not really sure what would happen, but when I came to this workshop, I wasn't sure if there was anyone here from my school. As it turns out, my two principals are here. I was thrilled to see them here. What's going to happen is going to be different from what has been happening because what they have found, I have found. With these new tools, I am returning to school with a lot more information and a lot more tools to work with to say, "Hey, why don't we try this?"

BROOKS: Wouldn't it be great if there was a problem-solving situation in school with some of the parents, some of the teachers, and the principal? We know it's a problem. What are the alternatives? There may be many ways that kids could learn outside of school that could be much more exciting for them.

AUDIENCE: We get parents yelling because we're trying more alternative ways of learning. Parents are calling in tears saying, "My kid is in kindergarten and I can't help her with homework." The stories that I hear on a daily basis are coming from parents that are sharing what she just shared—that it's a nightmare, that they are spending hours everyday, that they're spending weekends catching up. The point that we try to stress is that we have to talk about why you're having to do that much with your child. We reinforce the fact that this is reinforcement and that it's their homework. Parents forget that it's the child's homework. When the report card comes in at the end of six weeks, they either punish or reward themselves. But we're still not figuring out what the child is doing. We asked parents to show us what they do with their child when they help with homework. Nine out of ten times, they were thinking for them. One of the assignments that we ask our parents to do is not help them with their homework. Parents say, "If I don't, they will fail." We stress the fact that if the child will fail without you doing homework for them, then we are failing to do what we need to do in the school system. But many teachers are not aware that your child is struggling because you are doing the homework. I have parents that do the homework for the child, not with them. They are in essence camouflaging the problem for the school system.

BROOKS: The only thing I would add to your comment is that we have to be careful. The child who cannot do some of the work is panicking. They say to the parent, "I just can't do it." How does a teacher say to a class of kids, "Some of you may have trouble doing the homework, and this is not to be seen as a mistake or failure." That's why I have teachers actually ask that question, "Who in this class thinks that they are going to make a mistake or not understand something?" Parents respond to their kids' panic sometimes. We have to educate kids from day one that there's going to be some work, and some of them are going to have difficulty. There has to be a plan of action. Once a kid starts to feel that they're failing, they bring the parent into it. I remember my son saying, "This is your writing assignment now, not mine." I was really upset when I got a "C" on it. I wish we could have children understand that some of them will struggle, and this is part of a process where we can learn about them.

BERMAN: What kind of an atmosphere is going on in a school where parents feel the kind of pressure that you felt?—where they feel the demand to engage in this kind of stress with a child only to feel like they're doing what they needed to do to help the child keep up? Chances are, you weren't the only parent feeling this way. One of the things that has to happen in terms of bridging this area between what we say we should be doing in school and what parents feel we should be doing, is communicating to parents that it's not OK to feel like the child's success comes or goes depending on how much the parent is going to be able to do with them at home. That's misplacing the responsibility for education. A lot of parents are very responsible. They want to feel like they're being good parents and doing what they have to do. They assume that the teachers understand how to teach. They figure if the teacher says they should do it, then they should do it. It's very important to dispose of this atmosphere that teachers are not responsible beyond what they do in terms of their lesson plan. I really appreciate what you said about the fact that if the child isn't understanding it in school, it's not the parents' fault. It's the fault of the teacher. The parent needs to recognize this. Chances are that if you are a parent that feels like you're under pressure to do a lot with your child, other parents are feeling the same way. If you can get together with three or four of them, perhaps you can get something changed in that school so that you don't feel so intimidated.

AUDIENCE: It seems like you're addressing the informed and educated parents. In this group, a number of parents have children with learning or other disabilities. What about the parents who don't have more than a third grade education, who can't use dialogue cards because they have no concept of what multiplication is, who don't have the monetary resources to be able to spend a Saturday afternoon, who don't really know what is expected of them? What about the kids in the inner city who are living in poverty and whose parents are uneducated themselves? Then, on top of that, they have homework. What is the school's responsibility towards them?

BROOKS: That is the exact population that James Comer worked with and his results with many of the parents who were school dropouts are a perfect example of what you bring up. It could have gone one way or the other, but with his program, parents and teachers were working together. The results were remarkable.

AUDIENCE: I wanted to make sure that all of us are aware of that population.

BROOKS: It's very, very important. There's a mother I know who is very successful today. She had a lot of school difficulties. To this day, when she goes to a school conference for her son, she brings a brown bag. I asked why she brought a brown bag. She said, "I hyperventilate so badly just walking into a school building. Every fear I had growing up comes back again."

AUDIENCE: I thought that I heard two people here say that children have to be retaught at home. Part of the homework problem, having to reteach, goes back to the different learning styles in the classroom. You talk about how children can't get it in the classroom and have to be retaught at home with homework. Homework is assigned without thought for different learning styles. Homework really does help children learn'

AUDIENCE: I feel that homework should never be graded. That puts more pressure on the child and the parent to get it done. I think it should only be an extension if we continue homework. I think there is also a fear parents have at some schools in going to talk to teachers. I happen to be very fortunate that I belong to schools that have an open-door policy with the principals and the school administrators. I am welcomed with open arms. All schools are not like that.

There should be a chain of command so that when you have a problem, you first go to your child's teacher and allow a sufficient amount of time to resolve the problem. If you're still not satisfied, then go to the principal, but work together first. That is the responsibility of the principal—to make sure that the staff is trained towards being open minded and making that parent feel welcomed. Open the door to the parents without them being afraid to talk about things. So many of the parents here are also teachers; and when their child is bringing homework home, so are the teachers themselves. The children are going home to a family that might be a single-parent home or two parents who work who are also bringing work home. The time that could be involved with a child is spent on the parents' work too. If a child could just come home to a mom whose been watching "The Bold and the Beautiful" all day, she has an easier time helping with homework. Also, we're only talking about children with learning difficulties. Homework is a problem for children who don't have learning difficulties. Even for the gifted child or the regular child, homework becomes a chore sometimes. If it's difficult for them, imagine what it's like for our children. Sometimes when a teacher gives homework, they think that they're the only teacher that kid has. So, they give tons of homework without consulting other teachers to see what they might be distributing. The child ends up having three projects due on the same day. Even when they plan ahead, it's still a big mess.

BROOKS: Priscilla Vail talks about having fewer teachers involved who are teaching more subjects, so that they can coordinate their efforts. You have a much better sense of things.

AUDIENCE: I wanted to talk more about some of the things that we can do at home to make our kids feel joy and love besides telling them that they're making mistakes. I've tried to get my child involved in sports and gymnastics, but I sometimes feel like she's still afraid of dealing with things like in-circle time and communicating, which is difficult for her. I want her to feel like she's OK. What are some of the things that we can do to make kids feel better about themselves?

BROOKS: One of my main interests besides the school environment is the home environment and what we can do there. Over the years, I've learned that there are some children who are born shy, and we can't expect them to talk as much. Kids may have different difficulties. How do you make children feel special and appreciated even when they have vulnerabilities? I always ask parents, "What special time do you have with your children each week?" This may sound crazy, but so many parents come to see me, and their biggest complaint is that they never do anything as a family. Why the heck would you want to? Some of the most miserable times you'll ever have are when you try to do something as a family. I remember, with Richard and Douglas, I'd say, "It's time to do something as a family." They'd say, "Why?" I'd say, "We'll read a book." They'd say, "We don't care." Within ten minutes, I'd have to pull the car over because there was fighting in the back. I'd say, "OK, we're going home." And they'd say, "Good."

I love to ask kids around five years old what their special time with Mom and Dad is. Many of them will say they don't have any special time. The parents say, "But I read to them." I love it when parents say, "Even if the phone rings, I won't answer it." How many of you have ever answered the phone when you're reading to or playing with your kids? Do you know what a change that makes? We have to spend time alone with each kid. When my kids were in high school, I used to take each of my sons out—one each week. Sometimes it's nice just to get out. We have to make sure that they feel very special. In those special times, we don't do homework. We do things that they truly enjoy. One of the ways that we make kids feel special is by providing them with opportunities to help others. Parents bring their five or six year old kids to nursing homes, to soup kitchens, to charity walks, even if they only walk one mile. I've found that one of the most powerful things to say to a child is, "You're worthwhile and special." Or when you engage with your child in something that's very meaningful. Michael Rotor found that when children were engaged in at least two charity events per year, there was better attendance and fewer discipline problems because the kids were so involved in helping others. Too many kids grow up, and parents are not the most charismatic adults in their lives. We have not provided them with opportunities where they feel special and appreciated. We can learn so much and enjoy life with our kids.

BERMAN: Parents are spending less and less time with their children these days because of work, and a lot of things competing for time during the day. With single-parent families, it becomes so critical to make the most of the time that you do have with your child. The things that you do with them should be the things that they really enjoy doing with you. It doesn't matter if it has any relevance to school. If everybody else is signing up for a certain activity and your child doesn't want to do it, I wouldn't push it. I would go with what's comfortable for the child by letting them know that whatever they're comfortable doing is OK and that you'll enjoy doing that with them.

I guess we all have favorite questions that we like to ask kids when they come in. One of mine is, "What kinds of things do your folks think you're good at?"

It's very sad how many kids think that there's nothing that their parents believe they're good at. That may not necessarily be true, but certainly it hasn't been communicated to them. We really need to do things that the child wants to do and feels competent at. I had a father once tell me that he didn't understand why his son said that they never did anything together because he took his son to play golf every Sunday. Well, the kid didn't like golf and wasn't particularly good at it. The father really felt like this was their time together. It's a really good example of failing to pay attention to what the child wants to do. If you can just do things that you enjoy doing together, that's the most important part of the equation.

BROOKS: There was a five-year-old boy who came into my office who said, "Dr. Brooks, my father hates me." He had ADHD. I was all set to say, "No, he doesn't," but I couldn't because three days before, the father had told me how he disliked his son. The father loved the older daughter, but didn't know how to handle the younger son. I basically said to the father, "You're losing your son." The father said, "What can I do?" I told him to just spend some time with him. The kid came in very bubbly about two weeks later and said, "Dr. Brooks, my dad and I have a private time now!" I asked what the private time was. He said, "Every Friday morning, me and my dad go to Dunkin Donuts together." That twenty minutes soon blossomed into more time. This kid would go over to other customers and say, "Buy this donut." They loved him. The father realized that he really had some nice qualities. Sometimes you don't know what a magical effect those twenty minutes can have.

AUDIENCE: Listening with eye contact makes a meaningful comment.

BROOKS: When my father would talk with me, the TV was never on. I felt like I had his undivided attention.

AUDIENCE: Over the past few days, I've heard a lot of things that I'm going to take home with me. But these are a lot of things that other parents have never heard before. Out of all that we've said, we have to stress learning as opposed to "A"s and "B"s. One case in point was that when my daughter started school, she brought home smiley faces. She showed me a frown one day and I took her paper and drew a smiley face and said, "See, it's OK." Kids will do anything to get an "A" or a "B." It's more important to stress learning.

BROOKS: This has been one of the most exciting conferences I've ever attended. I've found the audience to be one of the most responsive audiences. I want to applaud all of you.

CHAPTER 22

Accountability

* * *

> *People think responsibility is hard to bear. It's not. I think that sometimes it is the absence of responsibility that is harder to bear. You have a great feeling of impotence.*
>
> —Henry Kissinger

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VAIL: There are some subsets of the topic "accountability." I would like each member of the panel to say which subset they feel is particularly important, either from this list of questions or from their own hearts and souls. I hope as we look at that word and interpret it, we will also think about accountability for noticing, showcasing, and applauding success. Accountability seems to carry with it a punitive, accusatory connotation. I want to make sure that we look at the word in all its potential glory.

McGEE: I'm recently retired after twenty-two years on the juvenile bench, so the subset that I'm interested in is extremely high-risk kids that we see in juvenile court. When I first got on the bench in juvenile court, one of the corrections officers said to me, "Judge, you're never going to see any well-to-do kids in juvenile court." I thought he was being curt and didn't know if he knew what he was talking about. I found out he did know what he was talking about. Most of the kids who got in trouble in juvenile court come from families who are not very supportive, who don't have a whole lot of assets in the way of influence, intellect, wealth, or whatever they need to help them avoid the pitfalls that got them to juvenile court in the first place. These kids, like any other kids in life, also had their own share of learning disabilities, differences in learning styles, and problems in school. If a kid has differences in learning styles or other deficits, and a family that cannot help them through the morass and the maze of the educational system, the social welfare system, and the therapeutic community to work through these problems, that kid will probably get into more trouble than kids who have the assets of a good, moral family like people that show up at these conferences. In fact, most of the kids that we saw in juvenile court come from an abusive and neglectful background. If a child happens to come from that background and happens to be learning disabled, then the chances of extricating him/herself are much, much higher than a child from a family background of good, positive habits and activities.

The accountability in my world extended not only to the educational system. It extended to the mental health world, the social welfare world, and to the people who took care of what we called "the status offender kids." In juvenile court, everybody thinks that we only deal with delinquent kids. That was the easiest part of our job. The most difficult part of our job was to deal with the abused and neglected kids—to deal with the "status offenders." Those are the truant, ungovernable, and runaway kids. Can you imagine that in the population of truant, ungovernable, and runaway kids, there were a few LD kids? That's why they were doing these things. There was a whole bunch of them. In any event, I would like to talk about the accountability to do imaginative things to try and spot these kids early on and not wait for the mandatory two years of failure to react. We wait for something to happen and then react to it. People have asked me over the years where I would put my money if I wanted to try and reduce the crime rates and social problems. I've told them over and over again—early childhood development and even prenatally. Those are the kinds of things that I hope our society can become accountable for by developing a reasonable process of early childhood development. I don't know how we can go about doing it. I know what can solve a lot of the social and criminal activity problems. I don't know how to do it.

VAIL: I think that you put some personal accountability in with something you started doing years ago.

McGEE: She's talking about pottery. I became interested in pottery a number of years ago. One of the programs that we were doing in juvenile court was with a school in Jefferson Parish called Ames Elementary School. Ames is a high-risk school in a very high-risk area. It goes up to the fifth grade. There was a wonderful principal by the name of Phyllis Benoit, and that made all of the difference in the world. Phyllis Benoit, the court, the mental health people, the social service people, and a whole bunch of others got together and decided to concentrate on these kids and deliver some special services. It really made a lot of difference. Phyllis was the impetus for doing that.

One of the things my wife and I did was a pottery course with some of these kids. We had the kids and their mothers come. One of the things that was fascinating was that hyperactive kids could concentrate for longer periods of time when working with clay. It had something to do with tactile learning experiences and being able to get dirty. It's a technique that can be used in some way. I kept telling people, "Let's do anything with these kids that can give them some measure of success." Because they have to learn how to be successful. I don't care what it is that they can be successful at as long as it's not the kind of activity that they normally engaged in. They were quite successful criminals. If they can learn to be successful at something, then they realize that they're not as stupid as people have been telling them all along. Secondly, they learn the process of success. It doesn't matter if it's pottery. I created a marine resources scuba diving course. Some of the older kids said, "McGee's doing what? He's giving them knives too?" It was a very successful program. A lot of the older delinquent kids were the kind of high-energy, high-risk kids that are not going to be interested in pottery. But they were interested in scuba diving. We snuck up on a lot of those with learning disabilities because there was a certain amount of academic information they had to acquire to get the certifications. We would have them at the bottom of the pool with scuba gear on. We would teach them to read out the pressure on their gauge. You can't talk under water and so you have to use hand signals.

VAIL: That was just wonderful. It was practical, sensitive, and a wonderful living example of what can happen when people decide to make themselves accountable.

ARROWSMITH: I agree with Judge McGee. We've also found that clay works very well. I also agree with early childhood. We can pick out those kids who are going to end up in court if we don't do something major. I see accountability in a multifaceted way. Because I'm principal of a primary school, I certainly feel accountable for what goes on within the school and with the teachers. I also see the parents as a part of it. They need to be accountable. We have a great deal of difficulty getting those parents in, but we can get them to make changes and work with them. Most of them had very difficult school lives, and it's very important to open the door to them. It's got to be a team effort—not a them/us situation. We're on the same side. We're not here about sides. We're here about kids. "We care about your kid, and we want to help you."

I haven't ever met a parent of a young child who dislikes their child and wants to see their child fail. They want their child to have better than what they had. They may not have the skills. I think it's important for us to try and help them find the skills in any way that we can.

That's one way that I see accountability. I see accountability as a taxpayer. I care about what's going on in all of our schools because it certainly is impacting our society. I care about the number of prisons we're having to build. I care about the accountability of our profession. It concerns me when I hear negative things that people are doing in our profession. I heard in a workshop once that for one negative, you have to have eight positives. That's powerful. I think that we are in a wonderful and very difficult profession. One of the reasons is what we are expected to do with the number of children that we are expected to work with in a society with the difficulties that they have. I also feel accountability toward having teachers keep up with what's going on and having teachers come to workshops like this one. Staff development and keeping aware are a part of opening the doors so that people can let us know what is going on. I'm on the CDL board so I feel accountability in that area too. I think it's a multifaceted thing.

WIMPELBERG: The first term that comes to my mind is the political use of the term or even a punishment use of the term as in "hold you accountable" as though you've been misspending funds. Typically, that's what it means. A couple of things that are helpful to me is the difference between accountability for inputs as opposed to accountability for outputs. The distinction there is often made because we're ready to shift from one to the other. Traditionally, we used to account for inputs. Inputs for education would be the number of teachers or textbooks.

When we hold people accountable for keeping a certain number of teachers relative to the number of kids, it's an input accountability. Does every classroom have the textbooks that it needs? The notion behind those ideas is that if we develop the right set of inputs, then we can say kids will have at least a fair, adequate, or equal opportunity to learn. If we could figure out what those components were, and if we had enough of them, we could declare the system as "doing well" or at least meeting accountability standards.

The shift of late is the notion of letting everybody tackle this thing any way they want, but hold them accountable at the end for outputs. We would give a high-stakes test to see what kids know at a certain time. Typically and unfortunately, that kind of testing would rely on our traditional forms of either criterion or norm-referenced testing. Imagine the testing system. We can say, "Do with them what you want with your resources and everything is fine as long as they meet standards at the end." Often the notion of charter schools is based on an output accountability.

One of the typical rule structures for charter schools, which is true about our first effort in Louisiana, is that we'll waive a lot of the regulatory input requirements. We'll even remove the accountability that you hire all certified teachers. Often charter schools are given some latitude to hire non-certified teachers. But we'll check them at the end at some mutually agreed upon time. Input and output accountability may help us talk about this and see if we're on the same wavelength.

The last comment is building on Judge McGee's comments and Marian Arrowsmith's comments. The whole notion of anybody who comes in contact with anything in relation to this thing called education can be conceived of as having a certain kind of accountability. It might be fun to say, "Who would lay that accountability on them and hold them to it?" I really think that teacher education has been unaccountable for a long time. We're finally saying that we've got to align and get in gear. We've been allowed this stupid notion that professors convey this stuff to teachers who then convey it to kids. It's not just that part that was out of sync, but how teachers interact with kids was in a sense, an old-fashioned rural and European notion of what counts for developing learning.

Teacher education needs to be accountable. I know in this state we have a board that keeps ringing it up every now and again. We're working with them to try to be responsive. What about the state board being accountable? What would that look like? Should it be? What about legislators being accountable? We can say they're accountable because they might not be re-elected. That's a kind of accountability, but what about what they understand and the ways they talk to us about education? Is there a way to bring the notion of accountability there? If we hold parents accountable, what would that look like? I think it's a wonderful notion. What might we give teachers and principals? I guess we can't fire parents, and we certainly can't say, "You can't bring your kids back here because you've not been accountable." Although, there *are* sometimes versions of that out there. Isn't there a version of accountability that could actually be enacted? I'm sure it would have different legal qualities to it than other kinds of accountability. I'm fascinated with the notion of putting all those accountabilities out there and asking which kinds we can begin to put in place and do something with.

THOMAS: I certainly think that parents should be accountable. I certainly think that all citizens should be accountable. All of us in this room should be accountable for the education of every child—not just our own. But we need to focus on what we can get our arms around.

So often when I work in inner-city schools, my message is that "I, as a teacher, cannot go into that housing project and change the way it looks. I, as a teacher, cannot give that family thirty thousand dollars so that they can get out of that housing project and go somewhere else. I, as a teacher, cannot get that dysfunctional family to become functional. I, as a teacher, cannot get that mother to get off crack. But I, as a teacher, during those seven and a half hours that the child is in the room with me, can be sure that I connect with that child whoever that child is, that I teach that child from my heart and my head, and that I do everything in my power to make sure that that child leaves me knowing more and understanding more than when he came to me." That is the accountability we can put a box around and work with rather than spreading ourselves out into areas that we know we cannot control.

How can we work as educators? We have to set limits as to what we can and cannot control. With regard to university accountability, that's something that Jeff, Bob, and the other deans must work toward. We each have to work within our own lives with what we can and cannot affect. Teachers should be held accountable for working well with children. We need to focus on schools like Marian's where she feels accountability as a principal to ensure that her teachers have good ongoing professional development. If we were actually doing it, we could get down to the nuts and bolts and say, "What is it? What would it look like? How does it feel? What would it taste like?"

ACHILLES: I'm a little cynical because I think accountability begins at the top. When we have laws and policies that interfere with what we should be doing in the schools and those continually hold us to conditions that restrict us from doing our work appropriately, somehow we've got to get them changed.

We don't, as educators, usually have the voice to get heard at those levels. We need only to look at the federal level where we have an ex-governor as the education commissioner or secretary. His deputy is an ex-governor. We need to go back to the Reagan administration to find an educator who headed up the Department of Education. We have not had a voice for children in Washington. Surely you don't believe that the speaker of the house is a voice for children. Surely you don't believe that the people who make the laws in Congress are really concerned about the people who do not vote. It bothers me and upsets me that I cannot, as an educator, go to Washington and speak to a person in a position of power and authority who is an educator. This is disturbing to me.

Accountability begins at the top with people who will allow us, as educators, to do what we know can work. We've had tremendous research recently to bring us to the forefront of what we know can work. People in medicine and brain research have helped us with this. We have to be able to use what we know, or we can't improve education.

The downside of that is the question of whether teachers should be liable for malpractice. The answer is "of course." If you want to be a professional, then you've got to take it. I can go into almost any school and find practices going on that if teachers were in a profession, they would be liable for malpractice. Therefore, accountability rests with the individual who is responsible to know what works, what does not work, and how to use what works.

Teachers tell me about using homework. I say, "Fine. Tell me about the research on homework." They say, "Oh, well, everybody does it." I say, "Wait a minute. Tell me a little about the forty years of research on homework." We know when it works, when it doesn't, when it's good, when it's bad, how to use it, and how not to use it. I would be upset if I went to see a doctor and was given an aspirin when I should have been given a Tylenol because of the difference in the makeup of those pills, even though they both control pain. I would expect a teacher to be able to tell me why he or she uses homework, under what conditions should it be used, just the way I would expect a doctor to be able to tell the difference between those two medications.

I can continue with the very primitive experience of retention in grades. People say, "What else can I do?" Many years ago, that would have worked, but I have made a list of other things. We can have multi-age grouping, peer tutoring, tutoring, multi-grading, looping, extended day, extended year, extra services, IEPs, multi-sensory education experiences, and problem-based learning. I can go on and on about the things we can do. If they have not been tried, and the student is retained, it's malpractice. That's malpractice. That's accountable to the teacher and the school if all of the steps have not been followed first.

So, accountability starts at the top as an institutional notion, and it resides with each of us in understanding how to practice this profession in the best possible way, keeping in mind the old notion that if we can't help, at least we don't hurt our clients. I could discuss practices that we use in schools that I believe harm clients. We should be very careful.

THOMAS: That goes right along with what I want. I want teachers to take an oath before they become a teacher. "Above all, do no harm." If doctors take that oath, why should not teachers be taking that oath? If a teacher doesn't want to take the oath, they should find another profession. Above all, do no harm to these children. I'm sad to say that I have visited too many schools where it's damning, damaging, ruining, and killing our children. In my opinion, those are the schools and the teachers who need to find another place to be and let us keep our children with us.

VAIL: I've been thinking about accountability among parents, among kids themselves, among teachers, and among administrators. What I can do is lay before you some models that I have seen that seem to be working very well. In terms of parents and their accountability, everybody knows that if we have parents with us, things are going to work out. It's very hard to get parents with us sometimes.

James Comer, from the projects in New Haven, said, "If we want the parents with us, we can't ask them to come and have conferences with us in school." School represents a place where they have probably failed. They're scared. They don't know what's going to happen. It's not their turf.

If we want to enlist parents in helping with the education of their children, we need go where they are. We need to set up a card table in the supermarket or better yet, in the laundromat, because laundromats have built-in waiting times. A parent walking along with a shopping cart can sidle up and look sideways to see if they have a little privacy and throw it out as, "I have a friend who's having trouble with their kid. What do you think? How can we look at this?" We need to go where parents are so that they feel more comfortable with us.

On a more glitzy level, there are some schools who have given up the idea of having those evening meetings that are poorly attended by parents who have worked all day. These schools, many of which are suburban or urban, are saying, "We're going to have lunchtime meetings in the downtown area where the workplace is." Everybody can get their lunch hour off. That's where we're going to have our meetings. There may be brown bags. We may have topics. We're going to go where the parents are. If we want them to be where we are in our hearts, then we have to go where they are in their bodies.

Often, an IEP will be written. The parents will talk. The teachers will talk. The learning specialist will talk. Psychiatrists will talk. Everybody thinks up what they're going to do to and for the kid. The kid needs to have some accountability, too. The kid needs to be part of the bargaining process of what the problem is, who the resources are, and what the steps are to solve the problem. This is what the psychiatrist will do. This is what the administrator will do. This is what the school nurse will do. This is what the classroom teacher will do. What are you going to do? What do you bring to this table? When we get that kind of accountability in terms of kids participating in the solution of their problems, then we build in an accountability which makes for active participation instead of passive acceptance.

As far as teachers are concerned, I love the way you said it, Alice. I heard one teacher say, "For so many of my kids whose families are disintegrating, or whose fathers or mothers have been pink slipped or all of the problems that are going on in the outside world, school is the only place where there is a sense of order in a world gone mad." This teacher said, and I believe it, that, "we send a very powerful message to kids who are dealing with very difficult situations, by maintaining high expectations." By saying to them, "Oh, you poor thing, your life is such a shambles. I can't expect anything of you," the message is "You're never going to make it." If a teacher can hold legitimately high expectations, this sends a tremendously reassuring message to the kids.

As far as administrators, we've heard over and over again that the school climate is a reflection of the priorities of the administrator. Strong administrators support their teachers. They counsel and help the teachers who are struggling and get rid of the teachers who are destructive. They find a way to get some legal help and keep that teacher from becoming a lawsuit waiting to happen, or they decide to take the lawsuit for this one. The administrators in the successful models that I've seen are making themselves accountable in that way. Teachers are making themselves accountable in the ways I've mentioned. Kids are being helped to be accountable, and parents are helped to be accountable by our going where they are.

ARROWSMITH: I don't see accountability as punishment. I see it as part of our job. As I said, I feel very accountable for what goes on in my school. If I have any staff member who I feel is not doing their job, and does not improve through coaching or other kinds of support, I feel it's my job to get those people and direct them to another field. A lot of people say, "You can never get rid of a tenured teacher. You can never get rid of a bad teacher." That is not the case. People who get caught up in due process often don't have their ducks in a row. My experience has been that if you go in in a supportive manner and work with the person, they want to do well. Teachers go into teaching because they want to be successful, just like kids come to school and want to be successful.

If a teacher is having difficulty, can you imagine how long the day is? They want to do well. So, you go in and offer to work with them, send them to conferences or workshops, send them to other teachers, have curriculum specialists or resource people come and work with them, if it still isn't working. If you've been documenting it all along, my experience has been that the teacher realizes that this isn't where they belong. Usually there's an area of weakness that's a major area preventing them from being successful.

One teacher that comes to mind was fine as long as I was in the room, but when I left the room, it was chaotic. She could do beautiful lesson plans, but she could not do it alone. She wasn't happy at all. She's gone on to another profession. I see her. We're friends. There are no hard feelings. It's important that we're documenting, that we're open with the teacher, that we're talking with the teacher on a regular basis, and that they know what the plan is. They need to know what we're working on and that if it doesn't work, we'll have to move on to other areas. We may have to recommend that they do not come back. I've also had teachers who have seen the writing on the wall and have decided to transfer. That's fine too. I'm not sure that that makes me feel good, but maybe in another school setting, the demands will be different.

It concerns me greatly to hear people say that we can't get rid of bad teachers. As a teacher administrator, it concerns me greatly to see bad teachers or bad administrators. It also concerns me to see them not getting any support. I've seen administrators thrown out to the wolves who got absolutely no support.

I think that's a complicated situation. I see accountability as supporting and coaching.

You were talking about parent accountability. You talked about meeting the parent someplace else. I think we can make our schools a place where parents want to be. It's a place where kids want to come. When the kids are happy, the parents want to come in and they feel welcomed. We can have them in for lunch before we talk to them about other things. I also know that we have parents who are on crack cocaine and other things. We can't change that.

While we try to work through FINS or other legal aspects like OCS, a lot of those things are very, very difficult, if not impossible, to document. Then, what we try to do is work with the kids, because they need to be held accountable also. We try to give them the skills to live in the environment that they're going to be in. While they're in a dysfunctional home, they come to a functional school. In that functional school, we can try to give them some skills. What do you do when your mother starts screaming, yelling, fighting, or coming after you? We've actually talked to kids about jumping out of a window or about what neighbor they can call. There are a lot of different things, but I think that's our job, too—to help the kids in those situations because sometimes they're caught.

WIMPELBERG: It's very important that Marian didn't describe how to get rid of a bad teacher. What she described was how to have a teacher either improve or move on to something else. She described getting rid of a teacher that can not be improved. We need to reconceive some of these notions because we all say, "Get rid of a bad teacher" as though we're looking at two apples where one is bruised and one is not. It's a process.

If the attitude is to let everyone have the opportunity to become a good teacher, and that's really what we're doing initially, then it leads not to hurt feelings. Most of the time, it will not lead to legal situations because you, in good conscience, not just for legal reasons but for the right, moral reasons, helped somebody try to get better. Maybe one of the things that we can do is say, "What if we start by conceptualizing an attempt toward improving?" If you do that right and nothing leads to a level of adequacy, then the leaving becomes almost automatic.

McGEE: In my years of dealing with the public, it seems as though there are two major reasons in the public world that we can't do things. One is a liability issue, and the other is a transportation issue. What I want to emphasize is that, theoretically, in this world that we live in now, we're liable for anything that we do and some lawyer is out there ready to sue us. When we see a wrong or something dangerous or unhealthy, especially with our children who are our charges, you have to do something about it and forget the liability issue. Take the chance and do what you think is right, especially when you see the high-risk kids. There are some legal things that you can do, but I'm not so sure how effective they are in the long run. If you can work around that some way and address the problem without using drastic means, that's helpful. Sometimes you see bad situations, and you've got to do what's right.

THOMAS: This morning I talked about six years of training, and I heard a few moans in the audience. I now know that in at least two states, the teacher goes through four years of college, a fifth year of internship, a sixth year of residency—to use the medical model—and that is where the collegiality and the onsite help come from. Only after that do they receive their certificate. Those states are New York and California. I would like to see that happening in more states so that when a teacher actually gets into a room without that support, they're ready instead of getting there and finding out that they were not prepared. If we can move toward that as a society, and I know it takes time, effort, and money, I think we will see more accountability and less school failure because we will have been more successful with training our teachers and giving them the tools that they need before they go out into the field. Our children are worth it.

VAIL: Let's find out what the audience thinks through their comments and questions.

AUDIENCE: All day today, I've been thinking of accountability. I think about it all the time. Sometimes I think that being a teacher is more important than being a priest because no matter where we go, we are teachers. I'm constantly addressing within myself what I call "the courage to personally respond." No matter where I am, I seem to always be teaching someone. But I think that everyone is a teacher in one way or another. Life is your teacher. I think what we're talking about here is what it means to be truly human and responsible for life. It's remarkable that we can come together and put a focus on it. This is something really special that we need to be in tune with and always be available to participate in. Every time we breathe, we are in tune with life. It's part of our natural way of being if we allow ourselves to be that way.

So much of society has reprimanded us for reaching out, for caring for another, whether it's through a lawsuit or other kinds of social fears. We know that in cultures around the world where they have maintained a source of reaching out, while they may not be literate or know how to use a computer, what binds them together into a healthy, social culture is the fact that they are truly accountable for each other. When you visit a village in Africa, it's not just mom and dad who are accountable for the children, but the village itself. Young people don't have to rely on one source for assistance. They have a community that they can run to for support. Our children should know that they can come to us—not just for Spanish or for algebra, but for whatever is on their mind—that we are there for them within the classrooms or schools. It always takes an extra effort because there are so many things to do. But, you have to say to yourself, "This child is here to teach me something. This child is here to exchange some aspect of their life. I'm going to learn and be transformed here. It's my learning experience that I need to stop for just this minute." It makes a big difference. Someone mentioned in another session how important it is to reach out and call home. That is really worth it. I have done this in the past, but never as much as I did last year.

I counted and had about 368 phone calls by the time the school year had ended. After a while, I didn't even write them down. It was just one more phone call. Every time I called, it made such a difference in the classroom. Sometimes I got negative responses like, "You better not call this house one more time or else you're going to have your tires slashed." Slowly but surely, the very same people that threatened me last year are coming to me to give me hugs this year. When you stop and say, "You matter to me beyond the classroom," it really does matter to them. It transforms not only the student, but ourselves. I don't have to feel threatened. I have an ally that's going to say, "Don't

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you dare touch this woman. She's one of my friends." It's so reassuring to know that my kids are there for me. Any time I reach out on that phone, I know I have a friend regardless of what I talk to them about. Accountability is essential as a part of loving each other on this planet. We're here to learn from each other.

AUDIENCE: My concern is the movement in a number of states. In working on accountability at the local levels, it's outcome-based accountability, not input-based. At the current time, the only thing we have to hang our hats on is, as Bob says, norm-referenced or criterion-based outcomes. That is going to be the critical factor that we use in determining accountability. There's been a lot of discussion about the limitations of those tests and of measuring what is effective education in a larger sense. How is the education system likely to react to these accountability systems? How can they help educate the legislators? It seems to be a political reality that test scores are generally accepted by the public as indications of the effectiveness of the education system. I hate to see the whole system move away from the idea of a portfolio of performance. What can be an appropriate reaction from the education staff to this movement?

ARROWSMITH: Are you talking about the Louisiana LEARN Program?

AUDIENCE: Yes.

ARROWSMITH: My understanding is that schools and school systems will be setting goals based on what we're doing. We will be measured against that and test scores will be part of it. This is part of our society, unfortunately, and I don't see it leaving. We're not going to expect a school with test scores in the 90s to make the same kinds of gains that schools in the 40s or 60s are expected to make. It will be relative, and it's over a six-year period. There will be two-year stages at which they are re-evaluated. We re-evaluate ourselves on a regular basis at my school. I certainly don't feel threatened in any way.

WIMPELBERG: A sociologist at Stanford, James March, wrote, "When it comes to assessment, it's the index to which people will attach themselves and not the thing we're assessing." In this case, the index is norm-referenced tests. No matter how much we reaffirm the importance of kids' writing samples and the importance of having multiple ways for them to let us know what they know, ultimately what will get attention is preparation for norm-referenced tests. To reinterpret that, if we are serious about allowing kids multiple ways to demonstrate their knowledge, then those kinds of assessment results have to be as legitimate as the results that we get on the norm-referenced tests. That's asking a lot.

ACHILLES: One area of research that I've done with several others involves looking at the assessment outcomes of a number of states. They're called state report cards. Extensive analyses of these shows that they're absolutely worthless; yet, there's a tremendous amount of money put into them. In Tennessee, which I'm very familiar with, the careful analysis shows that all twenty-seven indicators on that report card account for less than 15 percent of the test score variance. This means that 85 percent of the test score variance is not being attended to. In the meantime, the media feasts on the 15 percent that they can get their hands on, forcing school administrators to deal with that 15 percent. If I were in Las Vegas, I'd bet on the other 85 percent.

I work with the largest, non-union school system in California. In that system, they use what they call the "ACME Model." The ACME model is their assessment plan. They set goals or aims. The central office is responsible for the "E" which is evaluation. The "C", which is the content, and the "M", or the method, are left to the teacher. This is crucial because if you're going to hold me accountable for the outcome, don't tell me how to do it. Let me use my professional skill to get that outcome. This is extremely important to good teachers. Don't say, "This is the goal. This is how I'm going to evaluate you and you must follow this textbook to get there." I may not want to follow that textbook or it may not work for my kids. I have to choose the method and the content to get there with my audience. So your accountability measure cannot restrict my professional knowledge.

This school uses norm-referenced tests well. Their goal is the 90 percent goal. They live by this goal. At any time, their kids should be at or above ninety percent of the average. Any child who does not perform at the national average is handicapped. They run the school system that way. No teacher is told that they must use a certain book. No teacher is given a curriculum guide. The teacher is responsible for getting there, and the teacher knows what has to be done. If the teacher doesn't get there, they have staff development and all kinds of support. The teacher is told what to do but not how to do it.

ARROWSMITH: When a school has a problem, they're not going to say, "Try harder. Do better." They're going to send people in who can help them figure out what the problems are and try to find solutions.

WIMPELBERG: For Louisiana, is portfolio assessment built into this in any way?

ARROWSMITH: I think we'll be able to pull up some of our goals and figure out if we want to use those. That's my understanding of it.

WIMPELBERG: We'll use progress on norm-referenced tests. If portfolio assessment is a serious thing, it's not in this picture where it counts.

THOMAS: Perhaps it should be. Some similarity might be drawn to the whole language and phonics issue. You don't throw one out while you're trying to do the other one. Maybe we need to be doing both. Maybe the weighting needs to be that both are equally important—not one or the other.

ACHILLES: Do the people that design these tests know that half of the people have to be below average? Do they understand that? Do they know that half of the Mercedes on the street are below average? In their reporting of results, do they know that there's always a bottom when they rank people? One of the things that I love to do with my class is take the all star batting averages when they come out and rank them. The lowest one is usually around 310. I say, "I'll take a whole team of people who bat 310. I'll take the whole bottom, and I'll have a team that will beat you." A lot of people who do norm-referenced tests know that, but they can't translate that to the public.

WIMPELBERG: Wherever you begin baseline, you need to aim for something better the next year.

ARROWSMITH: Isn't that the motto of Lake Woebegone and Garrison Keiler, where all the children are above average?

ACHILLES: The best state model of that is in Tennessee where they have a very extensive value-added assessment system based on a mixed statistical design where each test becomes the pretest for the next test, and they look at the gains each year. They measure that against the national norm gains. This means, that if I start with a group of students that are not meeting the average, I'm not penalized because I'm measured against the national norm gain for youngsters like that.

VAIL: We are drawing to a close. I want to thank everyone on the panel and all of you who have been so gracious and hung in for so long. With the kind of thinking, dreaming, and practical suggestions that have come out of this summit, there's much that is bright in the futures of our children.

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CHAPTER 23

Home/School Relationships

* * *

> *Real education should educate us out of self into something far finer—into a selflessness which links us with all humanity.*
>
> —Lady Nancy Astor

MODERATOR

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HALLOWELL: The given topic for this panel is home/school relationships and we have some questions that we can follow. We don't want you to leave with any questions unanswered, so when we turn to questions, let's keep it open ended. The topics that we were asked to respond to are the questions in your booklet. The first one is, "Are parents ultimately responsible for their child's education or is it the school's responsibility, or both?"

BERMAN: I strongly advocate that parents should not be doing schoolwork with their children at home. I think that the responsibility for doing schoolwork lies in the school and that the frustration, failure, and difficulty that children have in school all day should not be repeated at home. Home should be a sanctuary, a place where children can be assisted to find the best that's in them, where they can spend some quality, nurturing time with their families. It should not be a place where they bang their heads against the wall about the same things they've done all day in school. On the other hand, I should acknowledge that there are many kinds of things that parents can teach their children if they have the opportunity to do it in a one-on-one, informal situation where they can really consider the needs of the child, what kinds of things the child is interested in, and take advantage of the opportunity to let their child get an education in a much more naturalistic way. Parents and teachers are both responsible for education, but they're responsible for different things. It's important to keep that in mind.

BROOKS: What has been most concerning to me are the adversarial positions that often develop between the parent of a child with special needs and the teacher. Years ago, in the journal called *Academic Therapy*, they reported an interesting study that might not still be valid today. They asked special education teachers to rank those things most difficult or most stressful in their job. Can anyone guess what was most stressful to these teachers? Parent conferences. Maybe it wouldn't be true if they weren't teaching children with special needs. The teachers felt that everything became defensive and adversarial very quickly.

I believe that parents and teachers are responsible. We teach different things, and we do different things with our kids. In an ideal world, a teacher and parent should communicate with each other right from the beginning of the school year. I've seen teachers send home two pages about the philosophy of the class and what they're trying to accomplish. The message is, "We are here to work together." The teachers that have done this are sending a message that they can communicate with the parent without the child doing something wrong. My concern is how to set up a relationship between parent and teacher where we can look very closely at the child's education in school and outside the school.

HALLOWELL: I would not disagree with anything just said. I completely agree. Earlier I alluded to a concept I call "connectedness." I think it's the key to emotional health, learning, and to life itself. I really worry that children are growing up without enough of this magic ingredient that I call connectedness, which is a feeling of being part of something larger than yourself—family, church, village, country, baseball team. The more connectedness you can build into a child, the more confident and competent that child will become. With connectedness, children naturally develop to the best of their abilities.

The job at home is to build familial connectedness. Having a family dinner together is so much more important than doing homework together. In other words, make the top priority getting everybody to the dining room table and keeping them there for half an hour. That doesn't happen in households around the world and around this country, in particular. That family dinner, and hopefully the family breakfast, will do more in invisible ways than can be done in twice that time spent on doing homework.

In fact, doing homework with your child can impair connectedness. You can get into struggles or frustrations that really should stay primarily at school. If your child is requiring intensive intervention to get through homework every night, something is wrong. You need professional assistance. Something's going on at school or with the child. It should not be the case that, after the parent's hard day at work and the child's hard day at school, they collide from eight until ten o'clock at night over algebra. Both the child and the parents need that time to connect in a family way, not to do homework. The work that's being done at home is every bit as important for your brain as the work being done at school, and they're not the same thing.

BROOKS: I firmly believe in special times. I love to interview kids and ask them, "What are the most special times that you have with your parents?" Some kids will not be able to think of any. I love parents that read to their children and make the time so special that even if the phone rings, they don't stop to answer it. It has been amazing to me how saying to a child, "I will not answer the phone while I am with you" lets the child know in a very concrete way, "You're important." As my sons became teenagers, I thought they no longer needed special time. I realized that they needed it more than ever. I would take one son out on one Wednesday and the other son on the next Wednesday. My son Richard had only one request—that we not discuss school. He was underachieving at the time, so I took his suggestion. After he went away to college, he would come home and say, "Are we still going to have that Wednesday?" That's the kind of connectedness we have to highlight. It has to say to a kid, "This is a special time. This is a time we're together."

HALLOWELL: It's not only the kids who need the special time. Parents do too. I miss my kids so much right now, I ache inside. I can't wait to get home and spend the weekend playing with them. It is the most wonderful relationship in the world—the one between parent and child. We need to develop that and make that an absolute top priority. The second question is, "What can be done to stop the blame cycle between school and home and to foster a team spirit in which the child's success is the winner?"

BERMAN: We have to make sure that we don't make the child feel that they're to blame if the schoolwork isn't going right. I work in therapy and have therapy clients who have never made any progress. They didn't like to come. If you mentioned my name outside of the therapy session, they'd wince. If I said there was something wrong with them or that they didn't know how to be a good therapy patient, you'd say, "Hey! Wait a minute buddy. It's not them." A lot of times, we get the same way about our kids in school. We tend to think that there's something wrong with the children if they're not responding to whatever approach or subject matter is being delivered. As parents, we can get drawn into that. We can believe that that must be true. If other kids are learning without difficulty, then it must be the child. The child is the victim. The child is the one who is going under for the third time in the school situation if they're not doing well. Parents and teachers both must understand that so they don't get into the problematic situation of arguing over who should take more responsibility. The fact is that teachers are responsible at school, and parents are responsible for a different aspect of the child's upbringing that only parents can do. The more that they work together and agree that the satisfactory, well-adjusted upbringing of a child with a good sense of self-esteem and a good sense of moral values is their shared responsibility, the easier it is for them to agree about what to do.

BROOKS: We have to try to minimize the "blame game" as much as possible before it begins. In my workshops on teacher-parent relationships, I emphasize that it's very difficult for a parent to go into a school knowing that their child is not doing well. Knowing that no one may be blaming the parents, they still want to wear a brown bag over their heads. When Richard was underachieving, I thought people would say, "You're an expert on motivation. Why can't you help your own son?" I'd like to see that a teacher and parent work closely together right from the beginning of the school year before there has been any homework or anything at all and see it as a cooperative effort.

HALLOWELL: I've done a lot of consulting for schools, and I'm also a parent. It comes right down to making a relationship with the parent if you're a teacher and with the teacher if you're a parent. Too often, the two groups only get together when there's a problem. That's a problem in itself. Take a few minutes and get to know the other person so that when you have a problem and need to make that phone call, you have a foundation. Then when the teacher calls and says, "Mr. Hallowell, your child has a problem," I don't go into a panic. I know the teacher on the other end. It can be dealt with in a much more human way if you have a relationship. It doesn't take forever. If each person goes out of their way to develop that relationship, it's money in the bank in terms of easing the lines of communication in the future.

AUDIENCE: Most children with learning problems have parents or someone in their family with learning problems. You're talking about parents who are lucky they got through school going out of their way to make a relationship.

HALLOWELL: For those people who hate school or have been traumatized by school, have that person go into school with a professional. In other words, if you're a mom whose child has been diagnosed with ADD, you should have a guide to pave the way for you. This guide can be an advocate, a pediatrician, or a therapist. This guide can bring you into the school environment in such a way as to help you see it differently and thereby help your child see it differently. When the "blame game" gets started, everyone gets hurt. The parents get hurt. The teacher gets hurt. The child gets hurt. When both parties are in separate rooms bad-mouthing each other, and they've both got righteous indignation up the wazoo, they get polarized. Everybody suffers. Parents and teachers, each taken as a group, are two of the most valuable groups we've got. They're taking care of the most valuable group—our children. When they can't sit down and talk, there's no one side that has a monopoly on being right. Do whatever it takes. Swallow your pride. Don't separate, don't polarize, don't get into the mind frame of "they're the bad people and I'm the good person." It doesn't help.

BERMAN: If I'm working with a family and I sense this sort of hostility or a mutual distrust between the parents and the school, one of the things that I routinely do is begin where the relationship is decent. Hopefully, the relationship I have with the parents is decent. I tell them that if they trust me to work with their child and their family, they have to drop out of the equation and let me take the role of the child's advocate. My purpose is to try and mediate and bring the parents into the school even before I get a total understanding of what's going on with the child. As long as there's that kind of mutual hostility, everyone's going to be unhappy. Sometimes there's another kind of mediator or professional who is willing to take that role. If you can get that situation resolved, so they can have a mutual sense of trust between them, it's much easier to do what's necessary for the child. Fortunately, that kind of situation is not as common as it used to be. A lot of people who haven't had problems in school are

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still very intimidated by the authoritarianism of school. Sometimes it's the fear or intimidation that causes them to respond in ways that they might not otherwise respond.

BROOKS: Everyone in this room has been fearful of a situation at some point. Think about a time you were fearful before a certain situation. What was it that a certain person said or did that helped you? Making one phone call and saying, "Hey, we're all in this together" lessens the fear. We have to use our own memories to guide what we do. It's not going to work with everyone, but I know there are some parents who've gotten a call like that from a teacher. It makes them feel great. Yesterday, I went over the phrase "praise deficit." I have found that during the school year, a note home about something the kid has done that's pretty good makes such a difference. What I say to parents is, "When was the last time you sent a note to the teacher, or called them, to say, 'My child is doing well' or 'My child mentioned that you did this?'" Many of us well-meaning people have praise deficits. What would take us five minutes to do, we often don't. But that's how we lessen fear.

HALLOWELL: I work with a lot of teachers and they really want these kids to do well. The two groups, parents and teachers, are overworked and underpaid. One group is paid nothing, and the other is paid next-to-nothing. Both groups spend their whole day dealing with problems, complaints, and unexpected disasters. If you can offer your teachers some praise or some help, or if you can say, "I'll help you with your Xeroxing" or "I'll run this errand for you." Those kinds of small gestures make a big difference. Often, teachers are not treated with the kind of respect that a professional deserves. They're treated more like servants. If you can treat them with respect, I promise you'll get further.

AUDIENCE: As a parent of a student who has lots and lots of problems, I think you should approach the teacher in a positive way by saying, "What can I do to help? This is a mutual problem." The teacher does not want the child to fail any more than you do. The hardest thing for a teacher to deal with is an angry parent. Of course, the teacher becomes defensive. In the long run, who gets hurt but the child? Parents have to remember that teachers are doing the best that they can. It just may be a tough situation.

AUDIENCE: As a teacher, I believe that meaningful homework assignments sometimes allow students to look at their homes, value the knowledge that is there, and bring that back into the classroom. This way, parents are recognized and appreciated. Teachers also know that their actions are recognized in the home.

AUDIENCE: I'm a learning specialist, and I just have a couple of suggestions. We want to start with the child's strengths. One thing I suggest is that you take food to the meeting, even if nobody eats it. That warms the tone of the meeting. The second thing is to start with the child's strengths. Instead of using the word *problems*, use the word *challenges*. It really changes the tone of the whole meeting. It makes it about problem solving.

AUDIENCE: I'm a parent with an eleven-year-old child. My problem is with homework. I work evenings. I work early in the morning. I work weekends with my child in the other room. I suspect it will be the middle of next week before the teacher, myself, and some sort of moderator can get together and have an amiable discussion about how things should be. What do I do in the interim? What do I do tomorrow? Do I go home and have some quality time with my child? He hates spending time with me.

BERMAN: The most telling thing that you said is that he hates spending that time with you. It seems to me that the most important thing is for you to have time with him where he feels that you value him. You can see the things that he's good at, not the things that he can't do. If the homework doesn't get done, then damn it!

AUDIENCE: I finally got someone outside of the home to do homework with my child. He leaves the house on Tuesday, Wednesday, and Thursday. It has been magic. It takes it away from me.

AUDIENCE: Both of my children have problems, and I have been doing that with both of them for over two years. It's the equation of taking the homework out of the house. We are no longer the bad guys. It makes the time that we spend with them so much more pleasant. Dinnertime is pleasant. Yes, they still have problems, but we no longer have these problems about what time and where to do homework. They're capable of getting homework done without a massive fight.

AUDIENCE: I have five daughters. They all have varying degrees of ADD. Through the years, this is absolutely the only answer. They focus when they're with another person. I had one who slept when she was supposed to be tutoring math, but it worked. My child got it done while she was there. She was the one who said to me, "Honey, you shouldn't be doing this with your child. You're ruining your relationship." Years of experience have taught me that when you're involved in your school enough to feel a little bit of self-confidence, when the homework is too much, you tell the child to go to bed. Then you write a note to the teacher and say, "We quit at this point. I would not let her do anymore." That's tough, but it's really the message the teacher wants. I'm a teacher, too. We don't want these children up until midnight. At what age do we say they really begin to be responsible and should be doing their homework?

BERMAN: I'm not on the wagon for the group that says, "Children should never have any homework assigned." I am saying it's not the parents' responsibility to do the homework. You shouldn't let the homework poison the relationship that the child has with its family. I really don't see the value of traditional types of homework for young children. There are some creative things that I wouldn't argue with at all. As children get older and can begin to realize goals and long-term benefits, usually around ten or eleven years old, it makes a little more sense. They have to be able to understand its relevance to them and their future. I don't think they can do that when they're young. Cognitively, they probably can't. They are doing it to please their parents and teachers, not because they see it has any inherent value to them. As they get a little older and can realize that it does have some benefit, then they can contemplate future goals. If they haven't had their whole attitude toward school and learning ruined by that time, then they will be much more receptive to the idea of doing homework. They will see it as much more relevant and connected to their futures.

AUDIENCE: I'm a therapist in private practice. Something that I see in my practice is kids who are fifteen or sixteen and totally unmotivated towards school. They really would like to quit if their parents would let them. They're not doing their work. Some of them may have been diagnosed, but not early on, so they really don't have the confidence that they can really do it. A lot of them are so far behind that they feel they will never catch up, and I don't know what to do to motivate these kids or to help them gain the confidence to say, "This is something I can do and want to do." It's something that I struggle with a lot.

BROOKS: I'm glad you said "unmotivated towards school." I still remember an article that said, "All students are motivated. Many are dominated by avoidance motivation." They spend more time avoiding it. There was a program that was cited in the Carnegie Report called "Turning Point." There was a school district where the drop-out rate was 45 percent before they reached high school. They started a valued-youth partnership program. They took 150 kids who had been left back at least twice. They took this very high-risk group of kids; and in one year, the drop out rate went from 45 to 3 percent.

Do you know what the main ingredient of that program was? It was telling these kids, "It would be a great help to us if you would go down to the elementary school and tutor these kids for four to six hours a week. But, if you accept this responsibility, we will have to train you how to tutor." The kids said, "How could we drop out when we have people depending on us?" What's in it for kids to stay in school other than the law saying they have to? I think there's a need to feel like, "I make a difference." I use a concept that we engage in "negative scripts" in life. We will do the same thing over and over again even if it doesn't work. My whole philosophy has been "change the script", and it's up to the adults to do it. If something hasn't worked, do something that is, maybe, out of the ordinary.

BERMAN: Usually, it focuses on getting some kind of a job, some kind of a program where they can be able to work and get some sense of appreciation for what they do while structuring their time. The deal I often make with the kids that seem to be the ones that need to get some kind of respite from school is, "If you get a job, you keep it for a couple of weeks and you're doing OK, I'll give you my blessing. They want me to tell their parents it's OK. Usually, the parents agree with this.

HALLOWELL: There are a lot of kids who drop out of school, but they're still in school. They've functionally dropped out, and it doesn't make any sense to continue this flogging action that goes on. Instead, say, "OK, let's try it your way. What's your plan?" Then, suddenly, motivation kicks in. Succeed or fail, they'll learn a lot. Some of them have incredible successes. Bill Gates dropped out of Harvard. I give lectures to the Young President's Organization. Invariably, there are high school dropouts in the audience. These are people who became president of their company under the age of forty. Not just the ones who inherited the company, those who started their own company. There are a lot of entrepreneurs who are itching to get out there and get to work. They don't do school well. This is not to mention those who really should go to a trade school—the kinesthetic learners. It doesn't need to be a failing experience to say, "I've come to the point where school is no longer useful for me, and I'm not useful for school. Let's part the ways at least for the time being and see what develops." This is a minority of children, but those kids do exist. I've seen a number of successes in my own private practice where leaving school was the best thing the child ever did.

BERMAN: My youngest son was having the hardest time in school. We finally made a deal with him when he was about thirteen. We said, "There's a law that says you have to stay in school until you're sixteen. If you stay in school until you're sixteen and you're still having trouble, you can drop out if you have a job." We were thinking that by the time he was sixteen, he wouldn't want to drop out. Well, we were wrong. So, he said, "I have a job at the local theater popping popcorn." So we said, "OK, as long as you have a job. We made a deal, and you stayed in school. So, go ahead." That was when he was sixteen. Now he's twenty-five, and he's the general manager of a fourteen-screen theater. He runs the whole thing. He never passed math in his life, but he can use a computer and do the whole payroll and all the jobs that a manager of a theater has to do. It's amazing to me. If you asked him to go back into school to even give a lecture to some of the other kids, he's still scared silly of school.

AUDIENCE: I'd like to get back to the issue of collaboration. In my work, I have the opportunity to attend lots of conferences for lots of different reasons. It seems to me that teachers are most anxious to have a collaboration with parents as long as the parents do what they say and do not allow the parents a full partnership in the collaboration. Some parents are better at this than others. I'm very concerned about what I see as a increasing phenomenon. We have many parents who are more and more savvy. Teachers feel threatened by this. I act as a mediator. Sometimes it works, and unfortunately, sometimes it doesn't. The person that loses is not either one of those grown-ups. It's that kid. It's frightening to me cause I'm seeing it at younger and younger ages. It's one thing if the kid is bombing out at fifteen. It's another when they're nine or ten.

AUDIENCE: I want to get back to parental involvement. I teach the middle grades. I find that parents drop their kids off at sixth grade, and you don't see them anymore. How do you keep them motivated to stay involved with their kids?

BERMAN: That's one area that I think we're all still wondering about. I have a real issue with society's values as a whole. I feel that too many people have too many other priorities in their lives besides raising their kids. It seems to me that if they're not motivated to become involved because they're fearful and they can't handle it themselves, that's one thing. If they're not motivated to become involved because they're not prioritizing their kid's life as much as their own careers, or other things they'd rather do than go to the school and talk to the teachers, then I feel as though you have to do what you can with the child to try to equip them with coping strategies to deal with the situation without resources at home to support them. If possible, also work with other teachers and function as a mediator without another side in the mediation. Try to provide the child with resources to enable them to cope. Offer them some sense of connection with somebody so the child feels cared about. If the parents don't care enough, it's very hard to imagine that the children will.

HALLOWELL: The fact that we have to address that question makes a statement about where our society is today. If your children aren't the most important thing in your life, I don't know what is. It comes back to connectedness and how terribly important it is. If schools can facilitate that by making it a priority, by having gatherings, by having education or whatever a school can do to raise the primacy of the parent-child relationship to a level of explicitness, schools should do that. But schools cannot replace what's missing if it doesn't come naturally to a parent, if a parent would rather make more money that invest time in the child.

AUDIENCE: I've been a teacher for a year. I was very comforted by Dr. Brooks when he told me I was going to get better. I teach second grade in a public school. I would say we have eighty-five percent of our children on free or reduced lunch. The frustration for me are the children who if given the opportunity with the right evaluator, would test as special ed. The problems I find are the attitudes and behaviors they display that interfere with their learning in the classroom. These are the attitudes and behaviors that are reinforced when they get off the bus in their neighborhood. I feel fearful for these children because they almost need these skills and attitudes to survive in their neighborhood, but we teach them at school that they're not appropriate; that this is not how we act in the real world. How can you impart to a child a balance where they can survive when they go home, but when they walk in the doors of the school, it's safe? They don't have to grab things first. They don't have to push that person down. They don't have to come up and not speak to you for an hour because they feel uncomfortable.

BROOKS: When I've done workshops in violence prevention, one thing that comes up is "Don't talk about violence prevention." These kids have to fend for themselves in gangs. Over the years, I've had to adopt the attitude that we must focus on what we have control over within that area. There are all kinds of environments that kids are going to come from. Many of the kids that I've spoken to that come from environments like that find that the only place of safety and security will be in your environment where you don't permit some of that behavior. My feeling is that kids still need models where they learn that there are different ways of resolving conflict, that there are people who respond differently to them. I've learned that I cannot change the world, but in the environment I create, kids welcome it. I would not worry that we're going to undo their need for a gang. What I want to provide them with is an opportunity to see that there can be an environment where the first response to frustration is not to take out a gun and shoot someone else—an environment where kids learn how to mediate and handle things more effectively. I know that we lose too many kids, but I cannot control the whole nation. You create a peaceful environment in your classroom as much as possible so that kids can sense that there is an alternative.

AUDIENCE: There's never an instance where there's a one-size-fits-all answer. For homework, timelines, and things like that, a lot of times, what might work for one child does not work for another. What does work is stressing the importance of it having to be done. Some children like doing their work as soon as they get out of school. Other children like to relax first. Some of us like to watch the five o'clock news before we do anything else. We have to look at that where children are concerned. I think homework does assist in developing self-discipline. We have to help the children to see, no matter what environment they come from, the arena that we control is the classroom setting. It may be the only place we have control, and we have to make the most of it. It helps kids understand that they have eighteen years to be a child, and then they have to get out and get a job. School prepares us for our life's work.

AUDIENCE: I've been a teacher for twenty years. I'm a first grade reading recovery teacher. I've been very fortunate to have very few negative parent-teacher conferences. Adversarial relationships between parents and teachers start between students and teachers. When a child goes home and says, "Mrs. Baker doesn't like me" or "She yelled at me today" or "I had to stand in the corner," then a parent becomes defensive. Maybe we send home too many negative messages before we make that first phone call and say, "Can we talk?" It's also important for parents to get the message that we respect their parenthood and their home. When we give that respect, we have a tendency to get that respect in return.

BERMAN: That's an important point that you brought up. As much as parents have to be advocates for their children, they have to avoid becoming triangulated in situations where children do just that. They go home and say, "My teacher did so-and-so" hoping that their parent will ride into school on a white horse and smooth the way for them. Other times, they say things to teachers about what their parents do. It's almost like a family situation. If this were in a family, and the child was telling you something about another parent, the first thing you'd want to do is have a discussion with the other parent before you jumped to any conclusions or took any action that you might regret later. The first thing I would do is say, "OK. I'll talk to your teacher about it and see what I can do." When I talked to the teacher, I wouldn't necessarily assume that I had gotten the truth from the kid. Instead I would say, "This is what my child is saying. What can we do so that he doesn't feel so put upon?" Hopefully, that reduces defensiveness enough so that some discussion can ensue between the parent and teacher to prevent that kind of triangulation rather than allow it to ruin the situation.

BROOKS: We have to have communication between a parent and a teacher, right from the start. I believe very strongly that all of us must strive to overcome what I call a "praise deficit". We must learn to take the five seconds to appreciate each other. Once the relationship is there, I think there will be far fewer struggles between parents and teachers. Too often, we respond in emergency situations where no one is very rational.

HALLOWELL: I guess my last thought is about connectedness. I see schools and home as being breeding grounds for connectedness. Not for getting good grades, but for developing connectedness in each of those domains. I think that should be the priority—not grade getting. We're living in a time of tremendous hope and possibility. I come away feeling really inspired. By working, thinking, and worrying together, we really help each other out. Thanks a lot.

CHAPTER 24

Assessment

* * *

> *I should have liked to be able to say what I knew.*
> *They always tried to ask what I did not know.*
> *When I would willingly have displayed my knowledge, they sought to expose my ignorance.*
> *This sort of treatment had only one result: I did not do well in examinations.*
>
> —Winston Churchill

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McCARTHY: We have chosen three overriding issues that we would like to deal with. Is there anyone in the audience who has an overriding issue?

AUDIENCE: What do grades really mean to children?

McCARTHY: Let's start with an IQ.

THORNE: I'd like to respond to this question. Often times we hear in assessment that we need to do away with IQ tests. I'm a psychologist. I was trained using them. I use them often. I think that there's a wealth of information in an IQ test. The problem is the misinterpretation of the test. Maybe we need to do away with a Full Scale IQ score, but there is some really good information in an IQ test. You can look at verbal concepts, non-verbal reasoning, word knowledge, and the ability to express that knowledge. There are subtests that assess hand-eye coordination, sequencing skills, spatial skills, and a number of different cognitive skills. I do not think that we should throw the baby out with the bath water. Maybe we do need to do away with this full scale measure, but certainly, in the hands of a knowledgeable examiner, an IQ test gives you a wealth of information.

Related to the issue of IQ tests is the IQ-achievement discrepancy. I'm going to go back to the history of the IQ test. A man named Binet was commissioned by the French government to develop a test that could identify children who could not benefit from a regular education. In other words, children who would have school difficulties. That is what an IQ test was designed for. This was not designed to be a global measure of how smart we all are. It is grossly misinterpreted in that measure.

This IQ-Achievement discrepancy for a learning disability is also absurd when you think about what an IQ test is for. If a child is having school problems, there should be at least some subtests on the IQ test that are relatively weak. That's the whole validity of the tests. It predicts academic performance. No. We shouldn't throw the IQ test out except for maybe the full scale score. We shouldn't eliminate its use in defining or identifying what are called "learning disabilities." Of course, I would do away with the term *disabilities*.

This IQ-Achievement discrepancy is really a whole misconception of what learning problems are about.

ST. GERMAIN: I think there's another issue. It's the issue at the base of an IQ test which says, "How are we smart?" Are we smart because we do certain kinds of things? It addresses the idea that we can build our brains. The constructivist idea—that through life, experience, work, connecting, and learning, we build this idea of intelligence. The misleading aspect of it is that the IQ test itself is not the problem. It's the belief that a single number defines one's potential. I was talking with a father the other night. He said, "We had her IQ tested and I haven't seen the results, but I think it's probably around 74." The child was at 119. The misconception that you can name it in one moment is at the base of what we need to discuss in schools. The question becomes, "How are we smart?"

McCARTHY: I'd like to address this too, because I think you're not only talking about IQ tests but also the standard achievement tests, the "diagnostic tests" that are supposed to tell us whether a child has a learning disability or not. All of them are quantitative. They all suffer from "number numbness." It's how many things you get right, and not necessarily how you do them or which ones

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you get right, that are being counted. A child may get early ones or easy ones wrong because of attentional deficits, but may be able to do a lot of hard problems right. He may not have his math facts down, so his computations may be wrong. He may have some inaccurate counting strategies, but he's got a very good conceptual understanding of quantity. None of those show up in those numbers that we get as a result of the test and then determine that the child has a learning disability or difference or what that is.

THORNE: We need to go beyond the numbers. You can get a number. You can also get a description. How did that child get that number? How is a child responding? Observe their behavior during the testing. There's something called "testing the limits" which good examiners use. How did the child come to a response? How did they derive that number?

REED: Have they been taken out of the white middle-class box? Have they balanced verbal and non-verbal intelligence in a way that they can be measured off or balanced against each other? Have they improved to that extent? Have they become more than just vocabulary tests?

THORNE: We need to go back to what an IQ test is. It is a subset of ten to twelve cognitive skills. If we can stop looking at this test as some global intelligence test, we need to look at other types of intelligence and not this very specific subset of cognitive skills. It was not designed to do that. It was designed to identify children who would have school problems.

McCARTHY: Actually, it was designed to identify those that need extra support, not even necessarily the ones who were going to have problems. We need to look at that in a positive way and also look at an IQ test for those things that a child is not having difficulty in, for what kinds of processing strengths a child possesses. We can then use that information to build an educational program that will address how that child can achieve more successfully.

ST. GERMAIN: I think there's an issue with the reporting of a single number. If there was a spatial picture of talents on the ten items that allowed parents not to look at this as a single number, but as a combination of talents, we could demystify it and use it to manage things. When I work with a parent, I could strike fear in their hearts by saying, "We looked at the test and it's 89." All of the sudden, the child becomes someone different. We loved her coming in here and she was this beautiful, bright, energetic, artistic child. Going out, we're looking for a hospital because of a single number. It's the reporting process and the stigma attached to either having or not having something whose existence has probably never been identified by a scientist. It's much more fluid than that.

BALLANCO: What are teachers supposed to do if they get a child that is reported to have a low IQ? I'm a pediatrician. I don't know about IQ.

THORNE: Ignore it, and look for the child's profile of strengths and weaknesses. What kind of information does it give you about the difficulties that they might be having in school? I'll give you an example. I had a child referred to me in the fifth grade, and one of the chief referral complaints was that he did not pick up the overall meaning when he read things. He focused on the details. From an IQ test, I discovered that the child had difficulty with verbal concepts which are very important in science, social studies and a lot of other academic areas. I also discovered that when he was solving one particular subtest, he literally covered up the card so he could only see one piece of it at a time. This child turned out to be an excessive bottom up processor. He didn't look at the global picture in anything. That's why he was having difficulty with his reading. When that was discovered and a learning specialist started working with him and teaching him strategies, his grades improved. Reading was a much more rewarding and reinforcing task for him. You should look not at the number, but at how the child's profile of strengths and weaknesses relates to the trouble in school.

McCARTHY: You're also saying we should look at how the child did it—not only the profile of strengths and weaknesses, but the strategies he used. Those are what are really important.

BALLANCO: Most of the people in this room are receivers of assessment. How can they assess whether or not the assessment has been good? What if they get an assessment that does not have a descriptive profile in it? What should they do with that information?

McCARTHY: Throw it out.

ST. GERMAIN: I learned from Bernice to speak in my own voice. I ask what are the strengths of this whole human being. What does this child bring to this event as a strength? What can we know about what we can manage? The idea is to stay away from a singular definitive number.

AUDIENCE: Granted, the IQ test does give a lot of information, but we work under the federal or state guidelines where we have to have a number. If you have a child that has poor verbal skills, the list is not going to work because the child looks retarded. If you give another test that is primarily visual and the child has visual perceptual problems, she's still going to look retarded. So, you don't have an instrument to measure the child. The state and federal government have guidelines that require that discrepancy—that bottom line. You can't throw the IQ tests out, but we need better instruments to measure these children. The people who are making these instruments are making them for middle-income whites. They are not unbiased culturally.

BALLANCO: Are there any people in assessment here? What do you do if the teacher gets the information and says, "I can't use this . . . "? What do you do if the information comes back to your lab?

AUDIENCE: Our evaluation provide more information. Not as much as we would like, but we don't just report scores. We report strengths and weaknesses. I think she's more frustrated, like all of us that work under the state, with a test that we have to give where we have to provide a score. They don't allow us to do what you're saying we need to do.

ST. GERMAIN: Probably the most significant challenge to the concept of IQ has been launched in the past decade by Howard Gardner. Gardner clearly has attacked the idea that IQ is a single number and that intelligence can be quantified based on those limited cognitive operations. We're hopeful that the term *educate,* which means "to lead out," gives us hope that we are in the process of leading beyond that idea which is a dated idea. Yes. We're living with a difficult situation in that we know this event to be untrue. We're waiting for the social organizations, the government, and those agencies that support our funding to embrace these ideas.

AUDIENCE: When you're talking to parents and teachers, it's a measurable term that they can feel comfortable with.

BALLANCO: I don't use an IQ test. The test the I do use is called a neurodevelopmental exam. It's a test that's supposed to be done in a certain way, but you give it a lot of latitude. One of the things that assessors can do without invalidating the test is recognize that a child has a problem with a particular kind of processing. In the descriptive part of the test, explain that "the child could not handle this information when he had to read it, but when I read it to him, he handled it beautifully. In my opinion, that part of the test is invalid." I don't know if that's an option, but it certainly seems like something you could do in the discussion part of your report.

McCARTHY: I believe the misuse of IQ has done so much harm in this country. All of the research on expectations for kids overwhelmingly shows that what you expect of them is what they do. People come up with these numbers that put them in places where they don't need to be, when we know that IQ scores change with education, with circumstances, context, and so on. I love the idea that there are twelve different things on the test that Glenda spoke about. I love Clif's idea of seeing a graphic picture so that we see an overall idea of the kind of brain or learning approach that the child has. That's probably the way to go. Until those things are available to us, we have to work very hard with parents to let them know the myth of the IQ.

REED: It's a demystification process for parents and teachers about what IQ is and what it is not.

THORNE: And for the general public.

ST. GERMAIN: There's an underlying misconception that it doesn't change after a certain point, that after age fourteen or so, it becomes stable. It's not stable, and there's a great deal of brain-based research that supports the idea that you can improve IQ by as much as thirty points on that scale. It may be splitting hairs, but I don't think it's a test that we're after. It's an instrument. If I say "test" to you, you know what it feels like. If I say "instrument," it has a whole different meaning.

THORNE: Or tool.

ST. GERMAIN: Tool or instrument.

McCARTHY: They now have courses in how to take an SAT or GRE test. Why couldn't you have a course in how to take an IQ test?

AUDIENCE: Until the government changes its mind about what they need, we need that label. We need some type of measure. What we find in a large segment of children, who are falling through the cracks, is that they're looking at that bottom line. You cannot forget it. Special ed is built upon that bottom line. What we need is a better instrument.

ST. GERMAIN: Let's subvert it.

THORNE: We need some political changes as well. There are many people invested in special education. My philosophy is that if we take all of the money spent on special education and testing and put it into the regular education programs and we lower the class size, there isn't such a need for special education. Maybe some parent groups need to lobby to change some of this legislation.

REED: I'd like to make one other comment. In many, many states, although it's not recognized and known by those who are doing educational diagnostics in the school, if you find that a child comes out with scores that you do not feel are a valid representation of the difficulties that the child is having in school, there is a way that you can document what is going on in the classroom. Using clinical judgment, you can say that this is not a valid representation of the difficulties and use that as an avenue for getting the child special services. A lot of people do not recognize this fact. I've used it several times and have succeeded in many instances in getting the child the help he needs when the numbers don't match up. What we're talking about with a phenomenological approach to assessment is what the child is doing and the child's performance in the classroom—the approaches that he's using with classroom materials. You're not looking at constructed tests that do not reflect the curriculum, the teaching approaches, or the teacher's expectations that the child is experiencing. They really may not be valid representations of a child's ability or difficulty. We have to look at the patterns of performance in the classroom. Does the child seem to be having difficulties when reading comes up when his listening comprehension is just fine? If his listening comprehension is fine, but he's having difficulty with reading comprehension, it may be the decoding part of reading that's a problem.

Most standardized tests have no memory component whatsoever. Most of them are pre-organized. They're short and the stimulus is right there. That's not necessarily what the child has to do in the classroom. The hidden agendas that most tests don't address are volume, intensity, complexity, and weight. One interesting thing about the WISC intelligence test is that nothing is timed on the verbal scale. If you think of oral language, it probably requires the most rapid processing that we ever have to do. With the rate that information is coming in to be processed and retrieved, a child is given seconds to retrieve an answer. On the diagnostic achievement tests, they have all the time they want. We have to think about the rate of processing that we're asking a child to handle in the classroom, the volume we're asking him to process, and how much memory is involved. This has to do with the materials you're using, your own presentation, and what the interaction is between how a child is performing, how you're delivering the lesson, and the materials.

McCARTHY: So these assessments really are assessing two things: how the child is doing and how the teacher is doing.

REED: It's an interactive process. I call it an "interactive, ecological process" because you're also looking at the content, what the affinities of a child are and whether they're interested in that content.

McCARTHY: With the idea of using at least two major kinds of assessment—for example, a video, which would be an ongoing picture, versus a snapshot taken at one moment in time, teachers need to make distinctions between these two things. I like the letters "ing" and "ed". How are we doing in the learning of this? or What happened? We're either in the past tense or in the present tense. Teachers confuse those two things all the time. We need to look at things along the way as we're assessing. The on-the-way assessments take time. This brings us back to the issue of teachers needing more time. They need to be in conversations with them. They need to have students describe their work. They need to have students reflect on and evaluate their work. These teachers need the skills of social interaction to be taught as well as the time to utilize them.

REED: I always start with an interview where I ask the child what he likes to learn and why he likes to learn it. Then, I'll ask what's easy to learn and why it's easy to learn it, followed by what's difficult to learn and why it's difficult. I ask him what a teacher does that makes learning easy and what a teacher does that makes learning hard. Even the youngest children say, "All my teacher does is get up at the beginning of the day and give me five different directions that I'm supposed to remember all day long and I can't do it." The six year old has already told you something about what's going on in the classroom and why it's difficult.

McCARTHY: I love this question: "What did you learn that I didn't test you on?" I think that should be at the end of every single assessment that you do. I have a strategy that looks at non-verbal skills. Imagine that you've just read a short story. I'm going to give you three seconds to do this. You're going to draw some kind of a line, not a smiley face, but something abstract. I want it to represent anger. Let's try another one. This one should represent harmony. That's a great way to get children to go to the essence of material. The next step is a metaphor for that: "Sitting in this room is like. . . ." You need to start thinking about all the ways that you can do assessments that are fast and quick. Here's one we did in law school. Twenty-one young adults were in law school on the last day of the last class. It addresses lawyer-client confidentiality. These people have been coming to class at night for seven years and we're giving the final exam. We give them their blue books and tell them that they have two hours to write their own ethics for attorney-client confidentiality. We give them two blue books and tell them to cite case studies. They write and write. Two hours go by and they all hand them in. They're headed for the pub to celebrate, and we hand them part B. Part B says, "Take your essay home over the weekend and do a spatial representation of it. How do the ideas intersect? You can use an atom molecule or circles within circles. We want to see a spatial representation of the cohesion and coherence of that essay on Monday morning. Please drop it off." They grumbled, but on Monday morning, in came twenty-one people. They said, "We had to rewrite our essays. We didn't understand it until we did the spatial, holistic representation of it." There's an alternative form of assessment. You'll find different people who shine doing that other than those who can write and write. They both need to learn to do both. You're after essence, connections, and relationships. The more you think about these things, the more creative ideas you'll get about how to do them. In the workshops that we give, teachers come up with the most unbelievably creative ways to deal with alternative assessments that tell you a lot about where someone is.

ST. GERMAIN: How do we invite subjectivity into some form of assessment? We've been taught as teachers that we have to objectify. Every test that we give is a subjective decision on our part. The real challenge for us as teachers is to figure out ways to invite subjectivity with some level of integrity so that the subjectivity actually has a meaningful connection to the learning process. As we start to think about how we encourage students to write journals or use graphic representations, can we encourage students to get in dialogue with each other and demonstrate that they are listening to each other and that they can narrative build and paraphrase back? Can they get grades for it? I used to do a glass of morning meeting every morning at the school where I was principal. One little guy came up to me and said, "You know, Mr. St. Germain, I'm really good at morning meeting, but I don't get a grade for it. I don't get good grades, but I participate in morning meeting, I have good ideas, I raise my hand, but I don't get a grade." He was right. It's clear in our classrooms that we should step back and look at the children as they operate in the classroom, look at those behaviors that we want to encourage in them, and make those behaviors in some way a formalized part of the whole package that can be picked and chosen from. One other alternative assessment idea that I'd like to share is that if the student gets to choose the allocation of points, we've added subjectivity. For example, if you give a final exam, a project, a speech, and a survey, and you say, "What percentage would you like the speech to be out of a hundred?" For the test, usually teachers will set a bottom limit on it. It has to be at least forty-five percent of the grade. The youngster says, "I'm really good at presentation and would like it to be worth an extra five points." When that happens, you've added subjectivity. You've matched the child in such a way as to have "expertness" in that area. Conversely, in gifted and talented classes, if you walk in and say, "John, I'd like you to give a speech on something in twenty minutes." John is frozen in his seat because he wants to take a test. The point is that we must add subjectivity or at least balance subjectivity and objectivity. We have to sit down and say, "What do we do here at public school number 26 that we value and that is subjective? How can we weave it into our classes?" We already know how to do alternative assessment. We do it everyday. We just don't count it.

REED: That's the issue.

McCARTHY: The issue is: what do we have count? The way to do that best is to write the rubric with the kids. If you were students of mine now and you were learning 4MAT, I would tell you the integrity of 4MAT that I need you to understand. I'd give you a core of something that I couldn't negotiate on, but then I'd tell you about all the other things. My grades are always A, B, and I. "A" would be "exemplary," "B" would be competent," "I" would be "not yet." If you get to the point where you reach the final exam and you're still "not yet" there, then you make the decision to receive that "I"—I don't. There are three kinds of ways to do it, but the rubric would be written with you. Here are the kinds that would be exemplary and competent. Without these things, you would be in a "not yet" place. See what happens when you begin doing that with the kids. As long as you keep the integrity of the content, what you know that they need to know in order to get them where you need them to go.

REED: What you're saying about "not yet" is a very important thing. That doesn't mean you have failed. It means you're not yet there. How can you fail what you haven't learned?

McCARTHY: A master is somebody who started before you did. If we're going to talk about the diversities in kids, we have to talk about their differences in speed. One of the most important things I notice about the people who are different from me is their speed. Some people are slower. Some people are faster. The slower ones seem to do things better in the long run than those of us who are so quick.

ST. GERMAIN: I read a wonderful quote from a famous philosopher whose name is Alfred North Whitehead. Whitehead said, "Tis the rock of time upon which the dreams of learning are dashed." It is speed. Bloom knew it. Carol knew it. They knew it when they wrote that how fast you get there is not the issue.

BALLANCO: One of the things that teachers who do this kind of assessment in their classrooms should do is transfer this information to the people who are going to do the formal assessment of a child. It is so helpful to me as a pediatrician when a teacher or parent has written telling me what has and hasn't worked. A conscientious person who gets that kind of information will try to incorporate it into the report that is ultimately submitted with the numbers. Dr. Thorne puts in a phenomenon—a description of what has happened in the testing process. The numbers are in the back. The description is in the front. That kind of descriptive information is extremely powerful.

One of the things Mel Levine talked about this morning was the Schools Attuned Program. He's maintained for twenty years that the best assessment instrument is the classroom teacher because they've got the child all day long. They're looking at the child all day long. They're watching what kids do, and they can hypothesis test at their leisure. If it's a really hectic day, you don't hypothesis test. If the teacher notices that when they read about motors, the child really perks up, but when they read about bugs, the child is dead, it may turn out that the kid is really a motor freak. If you give this information to the person doing the assessment and they can incorporate something about motors to get the kid maximally stimulated, you'll get his maximum interest and maximum performance. Since you really can't control the assessment, you should control the information that goes into it. Don't let garbage get out. Don't just fill out a form that has some checkmarks on it. Write what you have done with that youngster to help describe it.

REED: Another important thing in assessment is that instead of just passing the report, this is a communication issue. Often there is no direct communication on how those two things integrate and relate. If we can increase the opportunities for direct communication once the assessment is completed between the teacher and the diagnostician. Then, we should involve the student and the parents as well. Then, we will be on much sounder footing, helping that child and providing the kinds of learning opportunities that can maximize his success.

ST. GERMAIN: I want to say something about teaching and loosely coupled relationships. In the schools, we have a wealth of information, knowledge, and creativity. Because it is so isolated, alternative assessments that teachers use in their individual classrooms never seem to get to the whole faculty. We're very loosely coupled as professionals. I recommend strongly that back home on the range, when you're teaching with a group of people, you should engage in some dialogue that focuses on what others do in terms of assessment. We did this with a group of principals and put it on the wall. We had an art gallery. I'm recommending strongly that you use your internal resources to build the kind of assessments that fit your school's vision of what ought to be happening.

AUDIENCE: You just said that we need to have direct communication between the assessor and the teacher after the assessment has been done so that you can have some opportunities to talk. Why wouldn't you want to advocate that prior to the assessment instead of having the checklist? That's my problem with psychologists. I feel like we have a lot of information that we can give them.

REED: I agree with you. Before I ever do an assessment, I get with the parents, the teachers, and the student.

AUDIENCE: In our school, it's usually in the form of a checklist. If you want to write on it, they'll take it. But there's a lot of things that those checklists don't cover, that can be verbalized much better. I would appreciate a psychologist calling and talking to me much more.

REED: I think that's a very valuable thing that should be done on a regular basis. I think that assessors should have direct, personal communication with a teacher prior to any testing that goes on.

THORNE: I think that's a logistical issue in terms of time. Maybe even teachers who want to talk to the mental health professional could ask the parents.

REED: Once they know that a child has been referred, a teacher could ask for notification of when the evaluation will occur. Then, when the time comes, call the diagnostician.

THORNE: The best thing to do is to set up an appointment on the telephone.

McCARTHY: Consider this as we close. Assessment is an ongoing thing. It's not something separate from learning—that you stop learning to assess. I ask you to think of your own lives and how you go along throughout the day asking yourself how you're doing. It's a constant in and out again as you go through your day and the things that you do, you're constantly assessing yourself. Assessment is a conversation that I have first with the world. Secondly, it's a conversation that I have with my family and my peers. Thirdly, it's a conversation that I have with my teachers. Lastly, it's the conversation I have with the world and with my work. That ability to have the conversation and to deal with assessment on that ongoing basis is probably one of the greatest ways for you to be happy and successful—if that kind of assessment goes on in your life. We need to find ways to let our students know that assessment is ongoing, it's an OK thing, it's a constant kind of feedback and we're on the road to somewhere. As well as those other assessments where you have to stop and be taken outside of a situation, there needs to be that kind of sense that assessment is the most human thing that we do in terms of our own growth and renewal.

REED: We have to tell parents this from the very beginning. This is where your child is now. It doesn't mean that's where he's always going to be. We're going to keep assessing where that child is on a regular basis so that the number doesn't put a cloud over the child or put a limit on what the child is going to learn. Too often, parents see that number, and they think that's all a child is ever going to learn. Teachers will see that number and make that same interpretation. They assume the child will not be a great achiever, treat him on a certain level, and never challenge him again. That's very wrong. It's a very great danger of the quantitative scores, the reliance on numbers, and the "number numbness" that we have governing our educational policies now.

AUDIENCE: I have a really difficult time translating these assessments to letter grades.

ST. GERMAIN: Whenever you give a grade, it's that point at which you're stopping to say, "This is where you are." I have a great story. We traveled to England to study the British primary school, and they do narrative report cards. We all decided as a faculty that we would do narrative report cards. We wrote these beautiful narratives for the parents. I was listening to the children as they boarded the bus. One little girl looked at another little girl and said, "I don't know what this means." The other little girl said, "Tell your mom you made a 'C' and I made a 'B'." Even if we stop giving grades, they don't. They have a need for grades. It's an interpretation.

BALLANCO: I worry a lot about purely subjective assessment from the negative end. "F"s put a red flag up and bring parents in very early. If you're working with a population of people who can read your subjective notation, then you can safely do it. I worry that in a lot of the school systems, there is relatively casual perusal of what comes in from the school. I also worry that when you write something down that's negative and the child reads it, you may do irreparable damage if you haven't been extremely cautious in the words that you use. There is in me a part that really worries about removing letter grades. One woman almost threw a tomato at me once because I said on television that a child who gets a "C" in the first or second grade has a very high risk to have something unusual going on. To me, it's a warning. Kids in the first and second grade should be picking things up fast and getting "A"s and "B"s. Kids should not be "average" in the first and second grades. They should all be "superior." When I see a child in the fifth or seventh grade who has learning problems and look back at early report cards, a tremendous number of those children have "C"s in the first, second, or third grade. I don't want to hurt children's feelings by giving them bad grades. But if a child is screwing up, we need to find a way to tell them that something is not working. Something is wrong. Grades are a cleaner way of doing that than a narrative. I actually think a narrative can do a lot more damage if you're not very cautious in the way it's written.

ST. GERMAIN: I disagree.

REED: I disagree absolutely.

THORNE: I really like Bernice's grades of exemplary, competent, and not there yet because hope is implied in the "not there yet" grade.

REED: But it also may look for why you're not there yet and help us to investigate it.

ST. GERMAIN: In every narrative, there is a section where you report to the parent exactly what you would like for them to do. They don't have to interpret the narrative. They know exactly what's going on. The "F" simply aggregates behavior.

McCARTHY: And if you're not getting in trouble, you're not being successful.

ST. GERMAIN: It's a myth that schools are fair—that they can be fair.

THORNE: Bob Brooks has emphasized asking the child. If we would ask a child to tell us what they need to do to demonstrate that they know the information, then we could come up with some really useful ways of testing children's knowledge.

REED: That's a wonderful answer. The other thing is to teach children how to be politicians and psych out the teachers.

ST. GERMAIN: That's like the 80/20 rule. Eighty percent of what you need to know is embedded in twenty percent of the information. When you talk about psyching them out, if you learn what that is, then you can write your own tests. We had students write tests that were much more difficult than the ones we would write and much more authentic.

REED: That's true. I often will say, "Why give a test? Why don't you have the children write the test?" That will show whether or not they have actually grasped what's most salient or most important. It will make it much more meaningful to them as well.

McCARTHY: On that note, we're going to end. Thank you all very much.

CHAPTER 25

Justice

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> *That only a few, under any circumstances, protest against the injustice of long-established laws and customs, does not disprove the fact of the oppressions, while the satisfaction of the many, if real, only proves their apathy and deeper degradation.*
>
> —Elizabeth Cady Stanton

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DICKMAN: Learning disabilities consist of various subtypes. I'm using the term *subtypes* very broadly. We have children that have deficits or disabilities that put them in different profiles or categories. Each such category or subtype has a different risk for predisposing the child to antisocial or delinquent behavior. If

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disabilities co-occur, the risk is even greater. If environmental factors exist, such as poverty or school failure, the risk is even greater. Research has shown that there are a number of forces that come into play in the environment and the neurobiological makeup of a child that lead to the potential for risk in developing anomalous pro-social behavior.

One of the other aspects that I've come across in a lot of research is that individuals with learning disabilities receive differential treatment because they can't communicate effectively. They are therefore more likely to be taken into custody by police, to be found delinquent by a juvenile court, and to receive a more severe penalty. When individuals with learning disabilities get into trouble, the same difficulties with language and pragmatics (that's understanding cause-and-effect relationships) that lead to academic difficulty interfere with their ability to explain themselves and present a sympathetic posture.

Many children with learning disabilities, when faced with an accusation, look guilty, act guilty, and cannot articulate a satisfactory explanation. We're dealing with a population that is particularly vulnerable to a juvenile justice system that is not lucky enough to have the gentlemen at either side of me involved and results all too simplistically in the needs of society.

ADMIRE: We have a program that has been running now for about seven or eight years. For individuals who come through the court who are placed on probation, we've institutionalized a system whereby they are screened to determine whether or not they may have learning disabilities. If they do, then they go to an in-depth interview for approximately two hours. It's not an evaluation. If we determine that they probably have learning disabilities and that they're in need of our program, they're automatically referred to a fourteen-week program to develop life skills to enable them not to come back through the system. Those skills are anger management, problem solving, and those kinds of issues. The results over a four-year study have shown a 40 percent reduction in recidivism.

AUDIENCE: Once the individual is before you in court, you said that you had five questions to determine whether or not they needed to go into the Learning Disabilities Association Program (LDA). Is that correct?

ADMIRE: You're incorrect because I don't do that. When they're placed on probation, the probation officer does it as part of their initial interview.

AUDIENCE: Have they been trained?

ADMIRE: Yes. They've been trained by our LDA staff.

AUDIENCE: Is this before or after probation occurs?

ADMIRE: It's after they've been found or plead guilty. It's at their first meeting with the probation officer. That initial screening is done and then they are sent to LDA where this in-depth interview occurs. You'll find some people who are, in fact, learning disabled, but will not be appropriate for the program because they have developed sufficient skills to be able to stay outside of the criminal justice system. Their fault is bad judgment as opposed to something that might be linked with their differences.

GREENE: We know now that there is a direct link between juvenile delinquency and learning problems. There was a great empirical study done in New Hampshire in 1972. It was published in 1975 and showed 70 percent of all the juveniles incarcerated in the juvenile training facilities in the state had learning problems.

You may have had some sociopaths also, but 70 percent had learning problems. Up to 80 percent of the people in jail as adults have learning problems. That's why you're now seeing the court system getting involved. We're very interested in what you said about the treatment of juveniles.

AUDIENCE: You said you send them to a fourteen-week program. How did you get the funding to do that? Do the individuals have to bear the cost?

ADMIRE: Initially, it was for adults. After it had been running for a while, our county put up almost a quarter of a million dollars to adapt it for juveniles. It's now in the juvenile system. Initially, the funding came up with LDA of Washington and United Way. After two years of doing it that way, they went to the county and said, "These are the results that we're getting, but we need funds to be able to continue." Our county council said, "Yes. We're going to do this because it's a whole lot cheaper to spend five hundred dollars on an individual than it is to incarcerate them. It's just simple financial sense." They did that for a couple of years without any input from the courts or requests to the court of what they thought about it. After two years, they inserted a line item budget for the program in the court's budget. It's a fascinating track that it took. It stayed away from the actual judicial system because there are all sorts of things going on there with competition for funds within the system. The county was convinced that this is cost saving. To me, this is very much a resource issue. If you don't front the costs, you give it to us in the criminal system later.

DICKMAN: There are two comments on the program that I think are important. The areas that are chosen to be focused on such as problem solving line up very well with the research that has been done recently with respect to the learning disability populations who are most at risk for antisocial behavior. It would appear that the dyslexic is not at risk. There are a number of current, longitudinal studies out with large numbers of students that find that the typically dyslexic student is not likely to have the social skills and problem-solving difficulties that other subtypes of learning disabilities have. Very often, the research that has been retrospective on supervised populations has focused on whether or not they can read well to determine whether or not they have a learning disability. The fact is that even if they can't read well, it's probably not because of dyslexia—it's probably because of environmental factors. Their primary disability is more of a right-hemisphere variety, the non-verbal learning disability type. That's one thing that your program has recognized very well. Its the only one of its kind that I know of. The other thing is the organizations that I've been involved in focus almost entirely on family dynamics as the cause for the child's behavior. I have a great deal of difficulty dealing with these people with regard to getting them to recognize that there's a neurobiological profile that the child carries with him that may be causing the dysfunction both in the family and in the child. This common cause variable that is resulting in the correlation between the dysfunctional family and the dysfunctional child is confusing the approach to remediation. Judge Admire's program has successfully overcome this.

AUDIENCE: Anyone who's been around for a while in mental health, juvenile justice, or education can pick up that a lot of what we're talking about is semantical stuff that's been around forever. The question of why certain juveniles have problems and others don't and of how we should address these problems speaks to the need to have interagency cooperation among those who deal with the education adjudication, and mental health issues of children. So, there is communication between and within the agencies. Everyone can talk and we can come up with programs that are going to service the needs of these children prior to arriving in the juvenile justice system.

GORRELL: Are there political turf issues that interfere with the ability to bring attention to the needs of individual children?

GREENE: Judges traditionally come out of law school. We don't come out of the field of education, so someone has to educate us. We have several areas where we can get education in the United States. One is the Judicial College out in Reno. What needs to be done is the fusion of programs into the national judicial college about learning problems, about Judge Admire's situation, about setting up a framework when a juvenile comes into your court to have that juvenile screened. A lot of times you can get an eight or nine year old and you can turn them around. If you wait until they're seventeen or eighteen, it's very problematic as to what you can do. It's not that we don't have willing judges. Most judges could make more money in private practice. They want to help. *Ignorance* is a tough-sounding word, but we're all ignorant in certain areas. A lot of courts are ignorant when it comes to spotting problems or knowing that they can help in the area of learning problems. So, we have an educational problem and I don't see this as a turf war.

ADMIRE: I don't either. I agree with what he said, but there's another aspect. Judges have a certain moral authority that comes with the office. They're given certain statutory authority. The greatest authority that we have is the authority that you think we have. I know I've done much more than I statutorily have the authority to do and no one argues about it because they think I can do it. As a result of that, if you get your judges involved, they can help soothe some of this. The other thing that has occurred in our state is that we have started to bridge out to the education community. Our schools are now looking to see if we can identify those people and bring them into the program before they get into trouble. We're also looking at the siblings of people who are already in trouble, and we bring them into the program before they get into trouble. There's a way of doing that.

GORRELL: I don't see a turf problem. I think that educators are interested in working with all areas of the community where children can be helped. We're talking about learning-disabled children, and there are a lot of different ways that children can be learning-disabled. That's important and the program sounds really good. It sounds successful. It sounds well intentioned, beneficial, and so on. The environment, the ethnic background, the family history, and many other things can affect whether a particular child or a particular group of children are vulnerable to the juvenile justice system, likely to get in trouble, and likely perceived to be a problem. That's a very long-standing, serious problem. There are people in the educational academy who try to study and understand what's going on with education. There's one area that looks very critically at the structure and form of education and its relationship to society. There are pronouncements that come out of that point of view that I'm still trying to understand. They make very serious, critical comments about what is really going on semantically and systemically. One very capable critic coming from the point of view of who has power and who has privilege in society has claimed that education is not failing, it's doing exactly what it's supposed to be doing.

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It's keeping the people who are in power, in power, and keeping the people out of power, out of power. I think this ought to be somewhere in our discussion, but I don't want to say that what we're trying to do in all of these programs is wrong. It's not wrong.

AUDIENCE: Are you saying that we are a class-structured society?—that we educate our children so that those in the upper echelon remain in the upper echelon, and those in the lower remain there and we don't want to change it?

GORRELL: Yes. This is, in part, a personal journey that I'm going through. I've always thought in terms of the individual, and I need to think about society. I don't always agree with what I'm reading, but I do agree that it's something I and we need to think about. Part of the critique would say that even when it's not deliberate, even when we're well-meaning individuals, we are inadvertently maintaining these relationships.

AUDIENCE: I need to address this issue again. I ask this as a learning specialist. We've addressed the issues of segregation. We've addressed the issues of individual children. I've been trying to reformulate the question, but basically, I'd like to answer Dr. Gorrell by saying that there is not only the fact that we believe that our children are failing our programs. I don't believe that the children are failing our programs. I believe that our programs are failing our children. I come from a very low SES (socioeconomic status) school where not only are we not providing appropriate education, but where it is so inequitable that we're setting them up to fail. We are, in multiple areas, compensatory education out of compliance. It's not even that we're providing a decent education, but that we're actually down to compliance.

DICKMAN: Two years ago, when I was here, I ended with an overhead that said "Break down the wall." It was for the purpose of indicating to the audience that I thought the wall between the educational institution in the community and the community should be broken down. We should have more interaction, especially in low SES areas. It has been my experience in twenty years of doing advocacy that the worst person to diagnose a child with a deficit is most often, about 90 percent of the time, the parent. What is the parent diagnosing? The parent is diagnosing unhappiness. If the child is unhappy, the parent begins reaching out to other professionals to determine what is making the child unhappy. If the parent is worried about what to eat or getting a job, they're not going to see that expression of anxiety on the face of the child when he comes home. First and foremost, you have the failure of early identification because of the parents' inability—not their lack of sensitivity or caring—to recognize the early signs of unhappiness.

Another element is the aptitude-achievement discrepancy formula. It puts off identifying children until they fail, especially the children we're talking about today. If we're talking about children in the juvenile justice system, a lot of times we're talking about those with non-verbal learning disabilities. Those children generally have adequate rote memory skills. They have adequate phonological processing skills. Those are the two areas you need to get through the fourth grade successfully. By the time they get into fifth grade, they're having trouble with concept formation, cause-and-effect relationships, and more complex thinking skills. They're having trouble with social skills because they can't interpret non-verbal cues like body language. The fact is that we've now reached a whole different stage of disability for this youngster. No longer is he just exhibiting a neurobiological deficit profile. Now he's exhibiting an emotional and psychological profile that is going to make it more difficult to reach him from an educational perspective, that is going to make him more vulnerable to the environmental influences that are going to put him within the juvenile justice system. It is two systemic weaknesses: (1) We don't reach out into our communities to help those parents who are dealing with environmental priorities that interfere with their ability to identify the unhappy child and bring him to the attention of the school. The school should be doing that for them or helping them do that. (2) The aptitude discrepancy achievement formula denies the fact that a child is disabled until he fails. For some children, it's a lifetime problem.

GREENE: My observation is that in the field of education, programs move at a snail's pace. I don't know that we have a group of people saying, "I like my status, so let's not do this program." Probably, the result is the same as if there were a concerted effort to keep certain people down. It's the system that's causing the problem. When you start talking about change, haven't we always had these problems? Now, as a society, we're always trying to strive to do better and to correct ills that we have really never taken the time or care to define before. Now, we're defining them. I can see all kinds of problems, and the system is not educating those people. I ask you educators, why are you so slow to move?

DICKMAN: If the system did move, we wouldn't have to worry about it. I see this as a failure of the educational system. Once the kids get into the justice system, it becomes our failure too. But, they wouldn't be here if it was taken care of.

AUDIENCE: It's not that we do this consciously. Society as a whole does not say, "We're going to keep down low socioeconomic classes." It's all of our subconscious things that prevent us from changing the system. The system can't change unless we, the public, assists it to change, or empower those who are at the bottom to stand up and say that we need a change.

AUDIENCE: Two very important programs came through advocacy by parents. They would not be in existence today if parents had not stood up and said something is not right. In lieu of that, it is our responsibility to educate the parents that have all of those indisputable odds against them to speak out for their children. I don't see that happening in either the educational or the juvenile justice systems. I wish that we could have a dialogue about how that could be done.

DICKMAN: I find that it's not the people so much, but it's the system we've established that rewards certain behavior and not other behaviors. Right now, we have a system that rewards what I call quantitative accountability. It's outcome oriented. Teachers, administrators, and whole school systems are rewarded based upon change. Change from what? Change from here to there. That means that in order to be able to earn that reward, you have to show a change. That means that you cure somebody. It's easier to account for a cure than it is to account for prevention. One of the problems in education right now is with aptitude/achievement discrepancy, with the focus on accountability, with the focus on outcome-oriented goals. We do away with the concept of prevention because it's very hard to quantify. Education and justice should work together. The problem is that justice is constantly trying to cure the problem that education failed to prevent so you've got the "blame game" going. We're not going to be able to meet the needs of justice in the field of education until we change our focus from curing to preventing. That's an educational issue.

GORRELL: I agree that that is an educational issue and that we are institutionalized in a lot of ways that we still don't realize. We maintain those because we're comfortable with them. We're comfortable with the language we use, with the schedules we've set up, and with the settings we create. It seems right. It seems appropriate. We don't challenge them within the institution. We've got a very strong American belief that you should pull yourself up by your bootstraps. A lot of people do it against some odds that are unfair enough that we shouldn't expect anyone to do it. But, we tend to pay attention to the fact that if that person can do it, the system must be good enough to allow everybody to rise. We need to understand better what these kinds of issues are and how they affect learning-disabled and other types of children.

AUDIENCE: We can now identify behavior at eighteen months that correlates with behavior at five or six years of age. We know which kids are predisposed to become drug abusers in high school. Understanding that the neurobiological basis of this system is real, I don't know that the justice system or the educational system can help it. We understand that kids who start using nicotine are those predisposed to attentional problems. There's a whole sequence of stuff that starts back in early childhood and has a genetic basis.

ADMIRE: One thing that's very interesting is that people are arguing over how we're going to talk about this problem. We're having to deal with this problem everyday and I don't care what you call it. I know it's there. We have to deal with it. I know that these discussions have got to go on, but somewhere along the line, we have to deal with it.

DICKMAN: I think it would be a mistake to think that Admire's program is a cure. The best that we can hope for from this type of program is that it will make a person marginally productive and not antisocial in terms of taking from society. It's nowhere near the kind of maximalization of potential that we could achieve if we were intervening for these kids before they got into trouble.

ADMIRE: That's the whole point. We're trying to stop the flow that started earlier.

DICKMAN: You brought up a very interesting issue. That's the whole issue of predisposition and identifying predisposition on top of that. A couple of years ago, people were being crucified. What do you do when you see a child that's predisposed? Does it mean that the child is going to be a criminal? No. It means perhaps we should watch his environment.

AUDIENCE: I'm not even sure. The studies that have been coming out show that people with either serotonin depletion or serotonin excess have been shown to be prone to violence. We don't know yet, but there is a spectrum here that we better try to understand.

DICKMAN: Researchers in genetics are being very careful. When they start identifying the chromosome for non-verbal learning and other disabilities, it's going to give us a whole new world. There are certain learning disability profiles that are predisposed to developing antisocial relationships. We have to know how to deal with that. Do we prevent these people from existing? We can't do that because they have skills and abilities that we would lose. We should recognize prevention if we're going to recognize predisposition.

AUDIENCE: This argument goes back to that traditional argument of heredity versus environment. You may be predisposed, but it has to be combined with teaching along the way

DICKMAN: Nature versus nurture or neither?

AUDIENCE: We spent years saying that it was all nature or all nurture without trying to figure out a way to integrate the two.

DICKMAN: We really didn't want it to be nature. We don't want it to be nature, but there's a lot of nature involved.

GREENE: Our field of knowledge has changed. You know why we're sitting here right now? Because our field of knowledge in medicine has skyrocketed. Believe me, it's not just in this area, it's in other areas. The courts are getting hit. We have an opportunity that we didn't have before to correct the evils that we now know exist. And, we know how to conquer them. The field of medicine is moving so fast that it's giving the courts real headaches. I don't want us to get down on ourselves. It's the private society, individuals, who are going to solve our problems. With the field of medicine now opening up an entire area that we can go into and make the quality of life for so many people so much better, I don't want to lose sight of the fact that it is an opportunity.

DICKMAN: People will wonder what predisposition has to do with justice. They're very closely related and tied. Right now, court cases are replete with defenses based upon excuse versus explanation. Excuse based upon a child that has had a predisposition that was not properly attended to and therefore, he should not be punished. He should be given a different form of punishment. I think that this excuse versus explanation that our courts are dealing with all the time is valid. In adoption, there's a lot of research on nature and nurture types of things. The research that deals with the nature and predisposition aspects is very reluctant to find significant statistical relationships between nature and behavior. The same study done with non-adoptive children is not reluctant at all to find that. The people who study adoptions do not want to believe or publish findings that indicate that nature is a problem. I would like to hear from the judges what they would do if someone came in in a juvenile matter and said a child should not be blamed for what he has done because he did nothing more than a competent psychologists would've expected him to do?

ADMIRE: The issue is not what I think about that. The issue is how do I keep him from doing it again. It's already occurred. What do I do so that he doesn't come back again? I tend to listen very carefully for those things. If those things are there and they're not addressed, it's just additional job security for me as he keeps coming back to the system.

GREENE: In our court system, we have what we call accountability. Everybody is accountable to a certain extent. If you are not guilty by reason of insanity, that removes your accountability and brings in another set of guidelines. Individuals have to be held accountable. It's the sentence of the case. What do you do with a child so you don't get the child back again? The child is held accountable. Society dictates that the child be held accountable unless the child has a mental problem that keeps the child from being held accountable. I don't make the rules, but when I put the black robe on, I have to enforce them. We have to hold the person accountable and then we try and structure a disposition or a sentence that will treat the malady that brought the child to us.

ADMIRE: When I give someone a condition or a program that they have to go into, I never talk about it being rehabilitation. That is a buzz word that makes people believe that criminals are getting off. To explain it to the public is to do what I said before. I need to do something with this individual so that they don't come back and do it again.

GREENE: When I first took the bench twenty years ago, I was so full of vim and vigor. I started giving all these edicts. After about the third kid someone said, "Judge, who's going to do all this? Are you?" He was a state probation officer. I said, "What do you mean, who's going to do it all? You're going to do it." He said, "Judge, I have a hundred and fifty kids. I can call these juveniles once a month. I may be able to see one or two every now and then." What a rude awakening? This is the real world. My edicts can't be followed because we're not set up that way. We now have a Youth Service Bureau in our area. We are very proud of it. So that we can have uniformity in the disposition, we don't sentence the child. We put the child in the hands of the Youth Service Bureau. They do a thorough investigation. If there is a learning problem, they find out about it and they get him treated. It would be great if all courts could have that situation.

AUDIENCE: My question is directed to Judge Admire's program. Do you have any special training for juvenile prosecutors? I'm a juvenile prosecutor, and there is a high volume of cases that I work as part of my diversion screening. A lot of times those kids come back. Maybe, as a prosecutor, I can prevent them from coming into the court system at all, especially the second time, if I can detect that there is a learning disorder. Sometimes I can get information from the parents, but other times, even the parent doesn't know what's going on. They think the child is just bad and lock him up.

GREENE: Explain diversion for the audience.

AUDIENCE: Diversion is basically handling the case outside of court with the Youth Service Bureau's supervision or even with the District Attorney's office. With special conditions, maybe community service along with an education class. Sometimes, if a child is borderline delinquent and just made a mistake, then we can give them a tour of the juvenile detention center. It's sort of like probation, but there's no record involved. We usually place them on probation for six months. If they violate the written contract that we draft with them, then we have the discretion of bringing them into the juvenile court system and prosecuting them with the original charges.

DICKMAN: The Individuals with Disabilities in Education Act (IDEA) indicates that you can't suspend or expel a child as a result of behavior that's a manifestation of their disability. It was taken a step further recently in a due process case where the judge found that the school district had filed the juvenile complaint for a child that had done some damage to the school. They were required to dismiss the complaint because they didn't re-evaluate the child for a change of placement. They found that referring the child to the court for what he had done was a change of placement. That gives the courts some authority to go back to the school district. How many cases do you get where the schools have actually made the complaint? Most of them? In those cases, it's considered a change of placement according to this particular case. You could, theoretically, go back to the school district and ask for an updated evaluation. If this is a manifestation of the child's disability, then we have to deal with it through IDEA and not through the juvenile justice system.

ADMIRE: The LDA in our state will train anyone who asks to be trained on these issues. The prosecutors who come into my court and into the courts of my fellow judges are told up front that they better know about this because they're going to look real stupid when I start asking questions about it. That's how we handle it. The interesting thing that has come from that is that the defense attorneys have started to develop knowledge. They know that when they say we have an issue of learning disabilities, they have my attention.

AUDIENCE: Are you saying that the courts would find that it's the schools responsibility in due process to put the child through a re-evaluation before altering his environment? If one of these students hits a teacher and the teacher files charges against him, is that going to be a due process issue?

DICKMAN: I really don't know. In this particular case, it was going on simultaneously in a due process and a juvenile justice setting. The judge in the due process case said that the referral to the juvenile justice system by the school was a change of placement and that the school district had to re-evaluate the child before they could do it. The court required not only that they postpone the action, but that the action be withdrawn.

GREENE: Don't get the idea that any time a child does something wrong, that that's going to be a defense. I can tell you that the judicial system is not going to adopt that stance. Perhaps they should have anticipated that the child would do what he did.

DICKMAN: I think it was Judge Greene who told me that judges have to walk a tightrope between protecting society and doing what's right for the perpetrator.

GREENE: Law is supposed to make sense, and it does make sense. It's beautiful to understand that the law is a combination of many parts and is constantly moving. You analyze from A to Z and when you get your answer, you back off and look at it. Does it make sense? If it doesn't, you better go through it again because it probably isn't right. Not all of the time. Sometimes you get an answer that you don't care for.

AUDIENCE: When you're talking about our laws, I think we really have to stop and look at who made our laws. The same thing goes with the values. Recently, I have been involved in taking some sociology classes. It was really interesting to me when we talked about the fact that our society has set up what is valuable to us as what we see advertised on television. We are being told as a society that a $200 pair of tennis shoes is what is valuable to us. A child who has nothing is going to get that $200 pair of tennis shoes no matter what he has to do, whether he has to rob me or take them off of my child. Are we excusing him because we have set up these values? None of us would say that these are our values, but if you look at the TV or the newspaper, you see the value system that we are setting up in our society. How can we say to ourselves, how does all this happen? I'm really concerned. I live in New Orleans. Our school system is in really bad condition. Our children are killing each other. It's very fearful to me. It's almost to the point where I say that the school system is committing an injustice and a criminal act by not educating children. The prevention needs to be earlier. The laws and values are being set up by a society that is not reflected by the people in our community.

DICKMAN: We are in a society now where Madison Avenue is writing our laws as well as our commercials. Everything is being done in sound bytes. We seem to thrive on simple answers to complicated questions. They don't exist. Mel Levine spoke about reductionism. That is one of those systemic weaknesses that we're suffering with at the present time. This is creating a great deal of havoc in our corridors on Capitol Hill. It's making it very difficult to get any real answers to the questions we're asking because everybody wants to say it quickly. If you can't say it quickly, it's not worth saying.

GORRELL H. L. Mencken once wrote that for every complex problem, there's one simple answer and it's wrong. We are a society that keeps looking for the simple answers. Every sentence that I want to use has to start with the words *it depends*. It depends upon the setting, the willingness of the people in the setting, and the understanding of the people. An important thing that sometimes occurs is that teachers try to educate students to understand some of those underlying societal messages. It's almost like spitting into the waterfall. The social messages come much faster and in greater volume than the messages that say, "Stop and pay attention to what they're doing." That $200 dollar pair of shoes is still very attractive.

DICKMAN: There was a time when we had to understand what we were doing in order to do it effectively. The computer age has taught us, at least, that a five year old can use a computer better than I can because I'm still trying to figure out how it works. You can't do it and use it effectively. This computer age is giving us an excuse for accepting without looking further.

GORRELL: There is a very strong ethical issue for all teachers. We have a responsibility as teachers, or anyone who works with young people, to pay attention to what society is doing to them and not only not contribute to the negative things society is doing, but to help them to resist that or to rise above it. It's an underlying task that's much bigger than, "What am I going to teach on Monday?"

AUDIENCE: My child has not robbed or killed. Why is that? Because as parents, we teach them values. We can blame a lot of people, but I find that the major problem starts with the parents not teaching them values and not holding the children responsible. Fifty years ago, this would never have been a problem. The reason those advertising agencies keep doing these commercials is because someone is buying the $200 tennis shoes. We have the option not to. I still think they should take more of the responsibility to pull that in. As parents, we still have to train these children. The least that we can do is hold them responsible.

DICKMAN: I agree and disagree. Four hundred years ago, if you could track an elk and you were a good shot, if you could solve problems of survival, you were the leader of your community. You didn't have to read. Society had other demands at the time. The people that had deficits in the skills that would allow them to track an elk and shoot straight were the learning disabled. It's our culture that teaches us what we need at this time in terms of being able to provide for our families. We, as families, certainly provide moral leadership, but what is moral and ethical also changes over time and in different circumstances. One of the things that we constantly see in the research, and this applies to both learning-disabled and non-learning-disabled students, is that the parenting styles that promote autonomy versus rewarding academic success are much more successful in the long run in providing for successful and happy children.

AUDIENCE: There are some basics that should not change no matter how many years go by. The children I deal with who have ADHD need more structure. There's no doubt about it.

GREENE: I agree with you. We see a breakdown of morality. It comes straight from a lack of family. We're not here to discuss all that. That is a problem with our society. We have amoral people who would just as soon shoot you as look at you. You can't completely divorce the two. Lack of morality affects learning. We do have a problem in our society that comes from the failure of the family.

AUDIENCE: Would you address questions six and seven?

DICKMAN: Should education regarding the causes of school problems such as attention deficits and learning differences be mandatory for judges, probation officers, attorneys, and police officers? Yes. There should be some mandatory understanding. Look at the research that I quoted earlier. The research indicates that there is a link between a learning disability and behavior. Children with learning problems that manifest themselves in terms of communication get arrested more often. They are found guilty more often. They are punished more severely than their peers in a similar situation.

GREENE: The more difficult question is how? It's very easy to make it mandatory for judges. If the supreme court of Louisiana said we should do it, we'd be in line to do it. You're in several different offices including the state, the bar association, the sheriff's department and city councils. The answer is definitely yes, but the way to do it is tough.

ADMIRE: Our state has educational requirements for judges. If you don't do it, you have to answer to the supreme court. I have put on training for our judges twice now. It can be done. It's just a matter of people understanding that there's a problem. Most people in the criminal justice system don't understand that there's a problem.

AUDIENCE: I'd like to raise another controversial issue. We know that some children will respond neurobiologically to winking the eye or raising your voice. There are other children who we know have attention differences that can be told over and over or disciplined, but they don't respond. Did corporal punishment block behavior that became very destructive because of its ability to wake the brain up?

DICKMAN: You need a psychologist who is fluent in operant conditioning to determine why it is successful in some cases. If you take an attentionally deficited child with an impulsivity problem and add to that a difficulty with understanding cause and effect, you're going to have a child that essentially acts without consideration for the consequences. Is he responsible for the consequences of an act that he couldn't anticipate? Generally speaking, I've just defined a mistake. I have not defined a purposeful act. We punish purposeful acts. We don't punish mistakes. How do we deal with him in the justice system?

GREENE: You have to define the kind of crime you're talking about. If a child gets mad at somebody and kills them, that's manslaughter because they actually intended to kill even if it was a mistake. You have to hold them accountable. It's the disposition or the sentence that you hope to be the right answer to keep them from doing it again. You don't let them off.

DICKMAN: What if a kid steps on the gas to jump a red light and he kills somebody in the crosswalk?

GREENE: Then, it would be vehicular homicide because he intended to go fast. It was a mistake. Most criminals in jail are there because they did something stupid.

ADMIRE: I couldn't agree more. So many of the crimes are not because people are stupid. They thought they could get away with it. It's not the deficit issues. It's the belief that they can get away with it. We see this all the time, and people are honest about it.

DICKMAN: I always considered the dividing line between the criminal and the learning-disabled defendant to be whether or not you can control their behavior by making the risk overcome the value of the reward that they're seeking. I know successful attorneys whose only reason for not stealing is that they will go to jail for it. They're not any more moral than the kid that does steal and goes to jail.

ADMIRE: The trick is to give them the skill to stop and consider the consequences.

DICKMAN: There are other kids that will still do it no matter how costly the consequences.

GREENE: To answer the other question of how can we help incarcerated children/adolescents receive quality educational services that address their specific needs? Legislation.

DICKMAN: Legislation is correct. This was a much more fun panel than I expected it to be. You have no idea how intimidating it is to sit between two judges. You've brought up some issues that I'll be thinking about for a while. Thank you.

Resource Organizations

* * *

American Academy of Child and Adolescent Psychiatry
3615 Wisconsin Avenue, N.W.
Washington, D.C. 20016
202-966-7300
Web site—www.aacap.org

American Academy of Pediatrics
141 Northwest Point Boulevard
Elk Grove Village, IL 60007–1098
847-228-5005
Web site—www.aap.org

American Speech-Language-Hearing Association (ASHA)
10801 Rockville Pike
Rockville, ME 20852
800-638-8255
Web site—www.@asha.org

Association for Supervision and Curriculum Development (ASCD)
1250 N. Pitt Street
Alexandria, VA 22314–1453
703-549-9110
Web site—www.ascd.org
E-mail—el@ascd.org

Children and Adults with ADD (CH.A.D.D.)
499 NW 70th Avenue #101
Plantation, Florida 33317
954-587-3700 or 954-587-9200
Web site—http:\\.chadd.org
E-mail—national@chadd.org

Center for Development and Learning (CDL)
208 South Tyler Street Suite A
Covington, LA 70433
504-893-7777
FAX 504-893-5443
Web site—www.cdl.org
E-mail—learn@cdl.org

International Orton Dyslexia Society (ODS)
Chester Building
8600 LaSalle Road Suite 382
Baltimore, MD 21286–2044
Web site—http://www.interdys.org
E-mail—info@interdys.org

Learning Disabilities Association of America (LDA)
4156 Library Road
Pittsburgh, PA 15234
412-341-1515
Web site—www.ldanatl.org
E-mail—ldanatl@usaor.net

National Center for Learning Disabilities (NCLD)
381 Park Avenue South, Suite 1401
New York, NY 10016
212-545-7510
Web site—www.ncld.org

National Council of Professors of Educational Administration
University of Memphis, College of Education
215 Ball Hall
Memphis, TN 38152–6015
901-678-2363

National Staff Development Council
P.O. Box 240
Oxford, Ohio 45056
800-727-7288
Web site—www.nsdc.org
E-mail—NSDCHavens@AOL.COM

Ontario Institute for Studies in Education (OISE)
University of Toronto
252 Bloor Street West
Toronto, Canada M5S IV6
416-923-6641 x 3172

Parents & Educators Resource Center (PERC)
1660 South Amphlett Boulevard, Suite 200
San Mateo, CA 94402–2508
415-655-2410
Web site—www.perc-schwabfdn.org
E-mail—percld@aol.com

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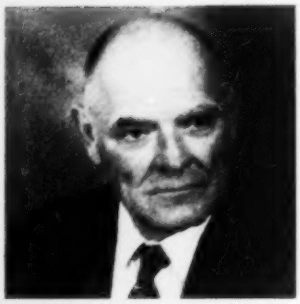


CHARLES M. ACHILLES, ED.D.

Charles M. Achilles has been a professor of Educational Leadership and Co-Director of Doctoral Programs in the Department of Leadership and Counseling at the School of Education at Eastern Michigan University since 1994. Dr. Achilles has also served on the faculty in the College of Education at the University of Tennessee at Knoxville. He has degrees in Classics, Education, and Educational Administration, all from the University of Rochester in New York. He has taught in public and private elementary and secondary schools and has administrative experience in public school and higher education. He has additional experience in program development, evaluation, and has contributed to research on topics including class-size, teacher/pupil communications, preparation programs, school effectiveness, and change. He has also worked on school improvement and equity in several states. He is author, co-author, or editor of over 60 books, chapters, monographs, or major research reports. He currently has over 350 professional publications in journals.

Dr. Achilles has experience in "effective school" projects in St. Louis and the Knoxville Proficiency Project as an evaluator. He has written a paper for the National Commission on Excellence in Educational Administration and is actively engaged in a study of class size in primary grades and has evaluated a policy implementation of small classes in K–3 in 16 Tennessee counties. He directed a study of "life in a small class," and has conducted class-size studies using the Student Teacher Achievement Ratio (STAR) database. Dr. Achilles serves as president of the National Council of Professors of Educational Administration. He enjoys research in schools and is particularly interested in how the use of research results can improve the condition and outcomes of formal schooling.

JUDGE DAVID ADMIRE

Judge Admire received his Bachelor of Arts from the University of Washington in 1971 and his Juris Doctor from the Catholic University of America in 1974. Following several years as a prosecutor and defense attorney, he was elected District Court Judge at the age of 33 in 1982. As a judge in the Seattle area his cases often involve alcoholism, chemical addiction, mental health issues, and dual disease problems. He has developed new and creative sentencing alternatives such as the DUI Victims Panel and the Lifeskills program for Attention Deficit Disorder and learning-disabled offenders.

Judge Admire is a member of the board of directors of the National Association for Children of Alcoholics and the National Prevention Faculty. He has served as president of the Board of Directors of the Washington State Council on Alcoholism. He has been a speaker at many national, regional, state, and local conferences on alcoholism, chemical addiction, and Attention Deficit Disorder and Learning Disabilities in the criminal justice system. Judge Admire has been an adjunct professor at Seattle University since 1977 where he teaches criminal law, criminal procedure, and the criminal trial perspective.

Judge Admire is married and has two children and two stepchildren. Two of his children suffer from Attention Deficit Disorder and multiple learning disabilities.

WHO'S WHO

ABOUT THE SPEAKERS

GERARD BALLANCO, M.D., FAAP

Dr. Ballanco graduated from LSU Medical School, completed a surgery internship in Denver, and spent three years in the Army Medical Corps as a general medical officer. Since completion of his pediatric residency in 1974, he has been in general pediatric practice with the Rothschild Pediatric Group, now the Rothschild/Ochsner Pediatric Clinic.

In 1990, he completed a mini-fellowship in learning and behavior problems with Mel Levine at the University of North Carolina, Chapel Hill. He has co-authored publications in *Pediatrics*, *Journal of Pediatrics*, and *Pediatric Infectious Disease Journal*.

Dr. Ballanco is president of the Center for Development and Learning (CDL). He has also served on the professional advisory board of local CHADD chapters and the Board of Directors of the Louisiana Branch of the Orton Dyslexia Society. Forty percent of Dr. Ballanco's practice is devoted to working with children with developmental variation and learning disorders.

As of January this year, Dr. Ballanco is also a proud grandfather.

ALLAN BERMAN, PH.D.

Dr. Berman received his doctorate from Louisiana State University in 1968. He is currently a professor of psychology at the University of Rhode Island where he teaches a learning disabilities workshop every summer. Dr. Berman is also involved as a supervising child and family psychologist with Delta Consultants of South County, Inc., a group he co-founded in 1977.

He is currently a professional advisor to the Rhode Island Learning Disabilities Association, where he was formerly both the president and a national executive board member. Dr. Berman has also given several conference presentations regarding learning-disabled and behaviorally disordered children.

ROBERT D. BROOKS, PH.D.

Robert Brooks is on the faculty of the Harvard Medical School and has served as director of the Department of Psychology at McLean Hospital. He has a part-time private practice in which he sees children, adolescents, adults, and families, and he has appeared regularly on television shows in the Boston area as well as on national cable television. He is also a member of the Professional Advisory Board of the National Center for Learning Disabilities.

Dr. Brooks received a Gubernatorial Award for Distinguished Public Service for his work with the Governor's Alliance Against Drugs. Dr. Brooks also received a "Hall of Fame" award from the Connecticut Association for Children with Learning Disabilities for his work with special needs children and adolescents, and the 1991 Special Recognition and Media Award from the Massachusetts Psychological Association.

Dr. Brooks received his doctorate in clinical psychology from Clark University and did additional training at the University of Colorado Medical School. He has co-authored a book titled *A Pediatric Approach to Learning Disorders*, published a number of articles and book chapters related to self-esteem, education, psychological assessment, and psychotherapy. Dr. Brooks has also written a sex education book for the young child entitled *So That's How I Was Born!* published by Simon & Schuster. In addition, Dr. Brooks is the author of a book titled *The Self-Esteem Teacher*. Dr. Brooks speaks to teachers nationwide on self-esteem and motivation.

ABOUT THE SPEAKERS

G. EMERSON DICKMAN, III, J.D.

Emerson Dickman is an attorney who, for seventeen years, has specialized in the representation of children with disabilities and their families, including advocacy and special needs planning. Among the cases he has handled are New Jersey's leading precedent protecting the due process rights of pupils in special education in 1989, and the leading precedent declaring and protecting the constitutional rights of adults with developmental disabilities in 1993. He is a member of the national Board of Directors of the International Orton Dyslexia Society, the Professional Advisory Board for the National Center for Hearing Disabilities, the Government Affairs Committee Chairman of the New Jersey Arc, and a Board member of the NJP&A, Inc., recently designated by Governor Whitman as the protection and advocacy system for the State of New Jersey.

Published articles include "Success & Happiness: A Goal for All Children" in *Exceptional Parent*, "Adoptees Among Students with Disabilities" in the *Journal of Learning Disabilities*, and "Inclusion: A Storm Sometimes Brings Relief" in *Perspectives*. He has been the recipient of several awards for his work in the disabilities field.

ANNE FORD

Anne Ford became the chairman of the Board of the National Center for Learning Disabilities (NCLD) in 1989. As with many parents, her interest in the subject was heightened when her daughter was diagnosed with a learning disability. During her term as chair, Mrs. Ford, daughter of Henry Ford II, has led the reorganization and broad expansion of NCLD, including establishing a Washington, D.C. office, presenting educational summits on learning disabilities in several regions of the United States, and effectively collaborating with national service organizations outside of the learning disabilities field, representing issues including literacy, school dropout, cultural diversity and early childhood development (Head Start).

Most recently, Mrs. Ford co-chaired a National Summit on Teacher Preparation, held at the New York Public Library. This event marked an important milestone bringing together major national general education organizations with NCLD and other organizations to begin the process of generating a workable plan for significant change in teacher preparation practices.

In 1994, Mrs. Ford was appointed to the Department of Health and Human Services, Commission on Childhood Disabilities, as the representative for learning disabilities. She also serves on the National Board of Directors of the Big Brothers, Big Sisters of America, and on the board of several schools for special needs students across the country. From 1991 to 1993 Mrs. Ford was a member of the New York State Board of Regents Select Committee on Disabilities.

WHO'S WHO

ABOUT THE SPEAKERS

JOHN GAGE, PH.D.

John Gage attended the Harvard Business School and the Harvard Graduate School of Public Policy. His doctoral work included economics and mathematics at the University of California at Berkeley. He is the director of the science office and the chief creator of educational programming at Sun Microsystems, the creators of JAVA, a worldwide web computer language.

Gage is responsible for Sun's relationships with the world scientific and public policy communities, international scientific institutions and groups developing new forms of scientific research involving computing.

He is on scientific and advisory panels of the United States National Science Foundation, the U.S. Congress Office of Technology Assessment, the European Institute of Technology, and the United States National Academy of Sciences. He has recently been appointed to the U.S. National Research Council Mathematical Sciences Education Board. He is also on the Board of Directors at Unicode, an industry consortium of IBM, Microsoft, Apple, Novell, Sun, GO Corporation, and others to provide multilingual capability in all world scripts for all documents and applications.

Gage is the founder of Net Day, a national thrust to install Internet cable in all of our nation's schools.

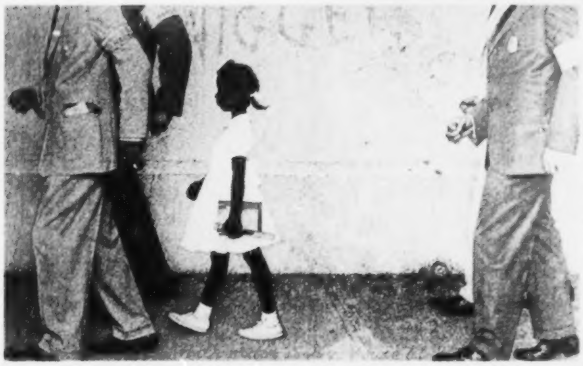
JEFFREY GORRELL, PH.D.

Dr. Gorrell is Professor of educational psychology and Associate Dean for Research and Graduate Studies in the College of Education at Auburn University. He has conducted cross-cultural studies on children's memory and metamemory development, children's development of learning strategies, and children's self-regulation activity in problem solving in and out of school. These studies, conducted in Korea, Sri Lanka, and the USA, focus on children as active constructors of knowledge and meaning. In 1987, he was a Fulbright Scholar to Sri Lanka. Other research studies, conducted primarily in the USA, have concentrated on pre-service and in-service teachers' social cognition (self-efficacy beliefs, cognitive modeling processes, perceived stress, and so forth) as elements of their professional development.

He has published two books and over 40 articles, and presented over 80 papers on topics related to cognitive development, cognition in learning, self-efficacy, self-regulation, international education, and other subjects related to psychology and education. In addition to serving as reviewer for major professional journals in education, he is editor of the *Professional Educator*, a professional journal that publishes research related to teaching practice and the professional development of teachers.

RUBY BRIDGES HALL

Ruby Bridges is perhaps best known as the child who stood alone in the face of racism and initially integrated the William Frantz School in New Orleans, Louisiana in 1960. She has also been featured on The Oprah Winfrey Show's Martin Luther King Day episode promoting Robert Cole's biographical children's book entitled *The Story of Ruby Bridges*, published by Scholastic. Currently, Mrs. Hall is the founder and executive director of the Ruby Bridges Educational Foundation in New Orleans which is committed to building healthy, positive, and nurturing relationships between children, families, and educators. Mrs. Hall believes that parental and community involvement are essential to positive life and learning experiences for children, and this belief is present throughout the work of her foundation.



Norman Rockwell painting of Ruby Bridges Hall.

ABOUT THE SPEAKERS

EDWARD M. HALLOWELL, M.D.

Dr. Ned Hallowell is a child and adult psychiatrist practicing in Cambridge and Concord, Massachusetts. A graduate of Phillips Exeter Academy, Harvard College, and Tulane Medical School, Dr. Hallowell did his residency in psychiatry at the Massachusetts Mental Health Center and followed this with a fellowship in child psychiatry, also at Mass. Mental. He is currently an instructor in psychiatry at Harvard Medical School.

Since the completion of his training, Dr. Hallowell has specialized in the treatment of learning disabilities and attention deficit disorder. He has written two books with John Ratey, M.D., on the subject, *Driven to Distraction* (1995) and *Answers to Distraction* (1995), both published by Pantheon Books, a division of Random House.

Dr. Hallowell also has specialized in school consultation and has consulted to numerous schools both locally and nationally. He has written widely about childhood and has co-authored a book with Michael Thompson entitled *Finding the Heart of the Child: Essays on Children, Families, and Schools.*

Dr. Hallowell has just completed a new book about children's emotional and learning problems that have a genetic or biological basis or component. The title of this new book is *When You Worry About the Child You Love: Emotional and Learning Problems in Children* (Simon and Schuster, 1996).

Dr. Hallowell conducts private practice in Cambridge, and he is also founder and director of The Hallowell Center for Cognitive and Emotional Health, a center in Concord specializing in the diagnosis and treatment of learning and attentional problems in children and adults.

He is married to Sue George Hallowell. Sue is a psychiatric social worker who also has a private practice in Cambridge. Ned and Sue live in Arlington, Mass. with their three children, Lucy, age 7; Jack, age 4; and Tucker, age 1.

MELVIN D. LEVINE, M.D., FAAP

Dr. Mel Levine is a professor of pediatrics at the University of North Carolina School of Medicine, where he is the director of the Clinical Center for the Study of Development and Learning. Dr. Levine graduated summa cum laude from Brown University and was a Rhodes Scholar at Magdalen College, Oxford. He graduated from Harvard Medical School and completed residency training in pediatrics at Children's Hospital in Boston. He served with the United States Air Force as a pediatrician, at which time he received the Meritorious Service Award for his work with children. Following his military service, Dr. Levine was the Chief of Ambulatory Pediatrics at Children's Hospital for fourteen years until he assumed his present position in North Carolina.

Dr. Levine has conducted considerable research and written many books, including *Developmental Variation and Learning Disorders* (1987), *Keeping A Head In School* (1990), *All Kinds of Minds* (1992), and *Educational Care* (1994), all published by Educators Publishing Service. In addition, he has been actively involved in educating pediatricians, educators, and others to understand childhood neurodevelopmental variation and its effects. He is currently conducting projects called SCHOOLS ATTUNED and Developmentary Schools which are designed to enhance the abilities of teachers to deal with children having academic difficulties. He has been actively involved in the design and validation of new diagnostic instruments that integrate neurological, behavioral, developmental, and health findings in children with learning difficulties.

Dr. Levine is an unwavering child advocate and the founder and president of the All Kinds of Minds Institute, a nonprofit organization dedicated to the understanding of differences in learning. He is particularly concerned about the lives of young people whose innate characteristics are not well understood by adults or by the children themselves.

WHO'S WHO

ABOUT THE SPEAKERS

BERNICE McCARTHY, PH.D.

Dr. McCarthy has earned a B.A. in Education from Rhode Island College, an M.A. in Curriculum and Instruction from St. Mary's College in Minnesota, and a doctorate in Education Administration from Northwestern University. She is currently president and CEO of Excel, Inc., a research, publishing, and consulting company designed to enhance educational excellence, which she founded in 1979 with the development of the 4MAT System. 4MAT is an education and training model based on combined research from neuropsychology, education, management, and human resource development.

Dr. McCarthy has also authored several books including The *4MAT System: Teaching to Learning Styles with Right/Left Mode Techniques* (1987) and *About Learning* (1996), both by Excel, Inc. Dr. McCarthy's essential message to teachers is: "The essential connectedness of knowledge and experience can never be omitted without consequence to the development and individuality of the learner."

ALICE P. THOMAS, M.ED.

Alice P. Thomas, M.Ed. is the founder and executive director of the Center for Development and Learning (CDL). Under her leadership, the CDL, founded in 1992, was recognized as the 1994 PGA TOUR *National Charity of the Year*. She is the creator of the biennial PLAIN TALK ABOUT K.I.D.S.© summit and editor of its 1995 and 1997 proceedings (Educators Publishing Service, Cambridge, Mass.). Alice is also the creator of the Learning Connections© school change initiative and Citizens Aware©, a public awareness initiative.

Alice holds a Master of Education degree from Louisiana State University. In 1990, she completed a mini-fellowship at the Clinical Center for the Study of Development and Learning at the University of North Carolina, Chapel Hill. Over the last 29 years, Mrs. Thomas has been a teacher, counselor, and intervention specialist in public school systems in Texas, Mississippi, and Louisiana, and has delivered numerous seminars on learning variation, learning theory, and teaching methods and delivery. She served on the teaching staff of the 1995 Schools Attuned Summer Institute at the University of North Carolina, Chapel Hill, and was the director of and a primary instructor in the Schools Attuned Institutes held in New Orleans from 1994–6.

Mrs. Thomas has been a volunteer for many community nonprofit organizations, serving several as president. She currently serves on the Advisory Board of the Center for Educational Research on Dyslexia at San Jose State University, California, and the Hallowell Center for Cognitive and Emotional Health in Cambridge, Massachusetts. She received the MAKING A DIFFERENCE Award in 1997 for her "outstanding contributions to the New Orleans community and its residents" from WDSU-TV, the NBC affiliate for the Greater New Orleans area. She is listed in the American Directory of Who's Who in Business and Executives.

She has been married for 21 years to David Thomas. Alice and David are proud parents of two incredible children, Russell, age 17, and Amanda, age 13, both of whom have nontraditional learning profiles.

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ABOUT THE SPEAKERS

GLENDA C. THORNE, PH.D.

Dr. Thorne is the clinical director at the Center for Development and Learning(CDL). She holds a doctorate degree in psychology from Louisiana State University. She is licensed to practice psychology in the state of Louisiana. Her specialty area includes learning disorders and attention deficits, as well as the social and emotional problems that occur as a result of these disorders.

In 1990, she completed a mini-fellowship at the Clinical Center for the Study of Development and Learning at the University of North Carolina, Chapel Hill. Prior to her current position at the CDL, Dr. Thorne was employed by the public school system for several years where she conducted student evaluations and inservice training for teachers. She is currently adjunct faculty at the University of New Orleans and has been adjunct faculty at Southeastern Louisiana University.

Dr. Thorne has been married for 29 years to Marvin Thorne, and is the parent of two children, presently college students, who have experienced attentional and learning problems. She is also a proud grandparent of Logan, age 4.

PRISCILLA VAIL, M.A.T.

Priscilla Vail is a learning specialist in Bedford, New York. Her work centers on the identification of different learning styles and their accommodation in the regular classroom, small groups, or individual work. She did her undergraduate work at Vassar and Sarah Lawrence, earned both her B.A. and M.A.T. at Manhattanville College, and did postgraduate work at New York University.

She currently gives teacher training and parenting workshops in this country and abroad for individual schools, public school systems, and such organizations as the National Association of Independent Schools (N.A.I.S.), Bank Street College of Education, Teacher's College of Columbia University, the Bryn Mawr Child Study Institute, the Principal's Center at the Harvard Graduate School of Education, Cambridge University in England, Learning Links International, and the International Orton Dyslexia Society. She is on the board of the Fisher Landau Foundation for gifted learning-disabled students where she is also a founding trustee, and also on the education committee of the Mystic Seaport Museum. She is currently the education director of the Hallowell Clinic for Cognitive and Emotional Health. She has appeared on National Public Radio, as well as TV-PBS, where a video series is in planning.

Her educational articles appear frequently in professional journals. Her books include: *Clear and Lively Writing; Gifted Precocious or Just Plain Smart; Smart Kids with School Problems; About Dyslexia: Unraveling the Myth; Common Ground: Phonics and Whole Language Working Together; Learning Styles: Food for Thought and 130 Practical Tips; and Emotion: the On/Off Switch for Learning.*

She is a wife, mother, mother-in-law, and proud granny.

WHO'S WHO

ABOUT THE SPEAKERS

ROBERT K. WIMPELBERG, PH.D.

Robert K. Wimpelberg is Dean of the College of Education at the University of New Orleans. After graduating from Yale University in 1968, Dr. Wimpelberg taught the Russian language to middle school students for several years in suburban St. Louis. During those years, Dr. Wimpelberg became involved in middle school reform, affective education, and teacher's union work. Those experiences seeded his eventual interest in school effectiveness for student achievement and the role of school principals in school improvement.

From 1975 to 1981, Dr. Wimpelberg studied school administration and educational policy supported by a Ford Foundation Fellowship at the University of Chicago, where he received his doctoral degree. He joined the faculty at Tulane University and then moved to the University of New Orleans in 1985, first as a faculty member, later as Associate Dean of the College of Education, and, in 1992, as its Dean. After his arrival in New Orleans, Dr. Wimpelberg stayed close to the work of principals. He helped organize and lead the New Orleans Principals' Center—one of the first principal directed professional development centers to affiliate with the International Network of Principals Centers at Harvard. Because of a decade of scholarship and service related to elementary and secondary schooling in the New Orleans area, Dr. Wimpelberg was awarded the 1991 DeBlois Faculty Fellowship by the College of Urban and Public Affairs at the University of New Orleans.

Since 1990, Dr. Wimpelberg has renewed his efforts in teacher education. He served as President of the Louisiana Association of Colleges for Teacher Education for two years, promoting a revitalized working relationship between the state's deans of education and the Louisiana Board of Elementary and Secondary Education. With his support and leadership, the four departments in the College of Education are rethinking teacher education at the University of New Orleans—integrating the expertise of specialized faculties and aligning the College's programs with state and federal reform efforts and the needs of the schools and classrooms in the Greater New Orleans area.

TEACHERS WHO CARE ABOUT K.I.D.S. AWARD WINNERS

BETTY C. ABERCROMBIE, M.ED., TENNESSEE

Ms. Abercrombie holds a B.S. and an M.Ed. in Elementary Education. She has 31 years of experience in education and has taught at Big Ridge Elementary School in Chattanooga, Tennessee, where she is a third grade teacher, for thirty of those years.

EDWARD E. BOLTON, M.ED., FLORIDA

Mr. Bolton has a B.S. with a double major of Mathematics and Physical Education as well as an M.Ed.degree in Computer Education. He has been a mathematics teacher and a coach for 22 years at Oviedo High School in Oviedo, Florida. Mr. Bolton's students describe him as someone who "makes us laugh.", "gives us praise and confidence.", and "loves to celebrate our success." He was a Florida High School Coach of the Year in 1992 and S.A.C. Coach of the Year in 1991, 1992, and 1993.

LEE DANIEL KENT, M.A., VIRGINIA

Mr. Kent has a B.A. in History and Political Science and an M.A. in History. He has been a social studies teacher for 19 years and currently teaches at Loudoun County High School in Leesburg, Virginia. Mr. Kent has received numerous honors and awards including 1997 Virginia Teacher of the Year, Massachusetts's Institute of Technology's Most Influential Teacher in 1995, and 1997 OAR History Teacher of the Year.

LESLIE C. MARTIN, M.ED., LOUISIANA

Mrs. Martin holds a B.A. in Business Education and a Masters of Education. The 1997 Woodlake Teacher of the Year, she has been a Special Education and Computer Literacy teacher at Woodlake Elementary in Mandeville, Louisiana, for 7 years. A parent at Mrs. Martin's school tells us that "never have I seen a more dedicated, compassionate, knowledgeable, and innovative 'Special' teacher than Mrs. Martin."

AMY W. ODOM, M.ED., GEORGIA

Mrs. Odom holds a B.A., an M.Ed., and a Specialist degree, all in Special Education. She has been a special education teacher at Austell Elementary in Cobb County, Georgia, for 7 years. She has received the Hamilton Award of Excellence in Education from Mercer University. A parent at Mrs. Odom's school says that her child now "loves school and will take on the world better because there was a Mrs. Amy Odom."

ANNE B. RANCK, M.ED., MISSISSIPPI

Ms. Ranck has a B.A. in Literature and an M.Ed. specializing in Learning Disabilities. She has been a teacher for 14 years and currently teaches at St. Andrew's Episcopal School in Jackson, Mississippi. A former first grader in Ms. Ranck's class told us that "every day was a new, fun adventure with Mrs. Ranck" and describes her as "kind, gentle, sweet, calm, and creative." She is the recipient of the 1996 Christian A. Allenberger Faculty Award.

LESLIE K. REVIS, B.A., SOUTH CAROLINA

Ms. Revis holds a B.A. in three majors including Philosophy, Spanish, and French. She has been a Spanish teacher for 23 years and currently teaches at Beaufort High School in Beaufort, South Carolina. A parent of one of Ms. Revis' ADD/LD students believes that "if she has made this much difference in the life of one child, she has made a difference in the lives of many children."

WHO'S WHO

TEACHERS WHO CARE ABOUT K.I.D.S. AWARD WINNERS

DAWN W. RIDDLE, B.S.,NORTH CAROLINA

Mrs. Riddle has a B.S. in Mental Retardation with a minor in Education. She has been a teacher of behaviorally and emotionally handicapped children for 21 years and currently teaches at Noble Middle School in Wilmington, North Carolina. She was recognized as Teacher of the Year for Hanover Schools in 1996. Mrs. Riddle believes "that students do not care what you know until they know that you care."

SUSAN O. SCHOESSEL, M.S.E., ARKANSAS

Ms. Schoessel has a B.S. in Marketing and an M.S.E. in Educational Administration. She has been a teacher for nine years and currently teaches at the Booker T. Washington Math/Science Interdistrict Magnet School in Little Rock, Arkansas. Ms. Schoessel is also a volunteer in her church and several organizations in her community.

APRIL K. SIMPSON, M.A., TEXAS

Ms. Simpson has a B.A. in Language Arts and an M.A. in English. She has been a social studies teacher at the Academy of Creative Education in San Antonio, Texas, since 1991 and has been a teacher for 17 years. Ms. Simpson was a finalist for the Texas Teacher of the Year and was the Texas Region XX Teacher of the Year. She has also received many other nominations for other regional and state awards. Ms. Simpson believes that teachers "help ignite the fire that lights the world."

EVA H. THOMPSON, M.ED., ALABAMA

Ms. Thompson holds both a B.S. and an M.Ed. in Elementary Education. She has been a teacher for 22 years and currently teaches at Monrovia Middle School in Huntsville, Alabama. She was Alabama State Teacher of the Year and 1995 Alabama Elementary Teacher of the Year. The parents at her school describe her as someone who is "always there to provide encouragement, a hug, a smile, or a pat on the back."

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